

ELECTRICAL SYMBOL LIST

LIGHTING SYMBOLS

	LIGHT FIXTURE, RECESSED
	LIGHT FIXTURE, RECESSED - EMERGENCY
	LIGHT FIXTURE, SURFACE MOUNT
	LIGHT FIXTURE, SURFACE MOUNT - EMERGENCY
	LIGHT FIXTURE, STRIP
	LIGHT FIXTURE, STRIP - EMERGENCY
	DOWNLIGHT FIXTURE, RECESSED
	DOWNLIGHT FIXTURE, RECESSED, WALLWASH
	DOWNLIGHT FIXTURE, RECESSED - EMERGENCY
	LIGHT FIXTURE, WALL MOUNT
	LIGHT FIXTURE, CEILING MOUNT
	RECESSED LIGHT FIXTURE, WALL MOUNT
	LIGHT FIXTURE, WALL MOUNT
	LIGHT FIXTURE, WALL SCOSCE
	LIGHT FIXTURE, COVE - RECESSED
	LIGHT FIXTURE, COVE - SURFACE
	EXIT SIGN, UNIVERSAL MOUNT, W/ DIRECTIONAL ARROW
	EXIT SIGN, WALL MOUNT, +8'-0" A.F.F.
	EMERGENCY LIGHT W/ BATTERY PACK, +8'-0" A.F.F.
	FLOOD LIGHT
	AREA LUMINAIRE
	AREA LUMINAIRE W/STANDBY LAMP
	AREA LUMINAIRE, WALL MOUNT
	AREA LUMINAIRE, POLE MOUNT

SWITCH SYMBOLS

	SWITCH, SPST +48" A.F.F.
	SWITCH, DPST +48" A.F.F.
	SWITCH, 3-WAY +48" A.F.F.
	SWITCH, 4-WAY +48" A.F.F.
	SWITCH, MOMENTARY +48" A.F.F.
	SWITCH, DIMMER +48" A.F.F.
	SWITCH, SPST, W/PILOT LIGHT +48" A.F.F.
	SWITCH, 3-WAY, W/PILOT LIGHT +48" A.F.F.
	SWITCH, KEY-OPERATED +48" A.F.F.
	SWITCH, TIMED +48" A.F.F.
	EXISTING SWITCH, SPST
	PHOTOCELL CONTROL
	OCCUPANCY SENSOR CONTROL

WIRING SYMBOLS

	PANEL & CIRCUIT NUMBER
	HOMERUN TO PANEL
	CONDUCTOR SIZE (IF OTHER THAN #12)
	PHASE CONDUCTOR
	NEUTRAL CONDUCTOR
	GROUND CONDUCTOR
	CONCEALED CONDUIT
	CONDUIT SIZE
	CONDUIT (UNDER SLAB OR FLOOR)
	FLEXIBLE CONNECTION
	CONDUIT, STUBBED & CAPPED
	NORMAL POWER CIRCUIT LINETYPE
	EMERGENCY POWER CIRCUIT LINETYPE
	EXISTING POWER CIRCUIT LINETYPE

FIRE RATED INSTALLATION NOTE:
ELECTRICAL ITEMS (LIGHT FIXTURES, BOXES, ETC.) WHICH ARE RECESSED INTO FIRE-RATED CEILINGS OR WALLS, SHALL BE "ALCOVED" IN GYPSUM BOARD ENCLOSURES PER ARCHITECTURAL DETAILS, OR THE DEVICES SHALL BE "UL" LISTED WITH FIRE-RATING EQUAL TO OR GREATER THAN THE FIRE-RATING OF THE ADJACENT CONSTRUCTION.

POWER SYMBOLS

	RECEPTACLE, DUPLEX +18" A.F.F.
	RECEPTACLE, QUAD +18" A.F.F.
	RECEPTACLE, DUPLEX +6" ABV COUNTER
	RECEPTACLE, DUPLEX +18" A.F.F. (ONE OUTLET SWITCHED)
	RECEPTACLE, DUPLEX +18" A.F.F. (BOTH OUTLETS SWITCHED)
	RECEPTACLE, DUPLEX, PEDESTAL MOUNT
	RECEPTACLE, DUPLEX, FLUSH FLOOR MOUNT
	RECEPTACLE, SPECIAL (COORDINATE WITH EQUIPMENT SERVED)
	RELAY
	TIME CLOCK CONTROL
	PUSHBUTTON STATION
	JUNCTION BOX
	JUNCTION BOX, EMERGENCY CIRCUIT
	THERMOSTAT
	TRANSFORMER
	DISCONNECT, NON-FUSED
	DISCONNECT, FUSED
	ELECTRICAL CONNECTION
	ELECTRICAL CONNECTION, SINGLE MOTOR
	ELECTRICAL CONNECTION, MULTI-MOTOR
	ELECTRICAL DISTRIBUTION PANEL, RECESSED
	ELECTRICAL DISTRIBUTION PANEL, SURFACE
	MISCELLANEOUS PANEL, RECESSED
	MISCELLANEOUS PANEL, SURFACE
	FLUSH FLOOR BOX (W/ DEVICES AS SHOWN ON PLAN)
	FIRE SMOKE DAMPER (REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION)

ONE-LINE DIAGRAM SYMBOLS

	ELECTRICAL DISTRIBUTION PANELBOARD (MLO)
	ELECTRICAL DISTRIBUTION PANELBOARD (MCB)
	SUB-FEED CIRCUIT BREAKER
	CIRCUIT BREAKER (TRIP RATING & POLES AS INDICATED ON PLAN)
	MAIN SWITCH (RATING & POLES AS INDICATED ON PLAN)
	FUSE (RATING & CLASS AS INDICATED ON PLAN)
	TRANSFER SWITCH (MANUAL OR AUTOMATIC)
	GENERATOR (RATING AS INDICATED ON PLAN)
	TRANSFORMER (RATING AS INDICATED ON PLAN)
	FUSE (RATING & CLASS AS INDICATED ON PLAN)
	GROUND SYSTEM (SIZE AS INDICATED ON PLAN)
	WATER PIPE GROUND ELECTRODE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	UTILITY METER & METER BASE
	UTILITY METER CURRENT TRANSFORMER
	FEEDER NO. (SEE FEEDER SCHEDULE)
	POTENTIAL TRANSFORMER (RATING AS INDICATED ON PLANS)

ABBREVIATIONS

A'	LIGHT FIXTURE TYPE (SEE FIXTURE LIST)
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINAL GRADE
A.F.I.	ARC FAULT INTERRUPTER
A.T.S.	TRANSFER SWITCH, AUTOMATIC
C	CONDUIT
C.O.	CONDUIT ONLY
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
C.T.	CURRENT TRANSFORMER
(E)	EXISTING
E.L.	EMERGENCY LIGHT
E.L.C.	EXTERIOR LIGHTING CONTROL
FACP	FIRE ALARM CONTROL PANEL
G.F.I.	GROUND FAULT INTERRUPTER
GND	GROUND
H.I.D.	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
I.G.	ISOLATED GROUND
I R	INFRARED
JB	JUNCTION BOX
LCP	LIGHTING CONTROL PANEL
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
M.T.S.	TRANSFER SWITCH, MANUAL
(N)	NEW
N.I.C.	NOT IN CONTRACT
N.L.	NIGHT LIGHT
OL	OVERLOAD
O.L.C.	OFFICE LIGHTING CONTROL
P	POLE
P.A.	PUBLIC ADDRESS
PC	PARTIAL CIRCUIT
PH	PHASE
PRI	PRIMARY
R.T.U.	REMOTE TELEMETRY UNIT
SEC	SECONDARY
SCCR	SHORT CIRCUIT CURRENT RATING
T.V.S.S.	TRANSIENT VOLTAGE SURGE SUPPRESSOR
U.G.	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
W.G.	WIRE GUARD
W.P.	WEATHERPROOF
W.T.	WATERTIGHT
X.P.	EXPLORATION PROOF

NOTATIONS

	DRAWING NOTE
	DETAIL REFERENCE: TOP=DETAIL NO., BOTTOM=SHEET NO.
	MECHANICAL EQUIPMENT MARK NO. (SEE EQUIPMENT SCHEDULE)
	EQUIPMENT NO. (SEE EQUIPMENT SCHEDULE)
	EQUIPMENT NO. (SEE EQUIPMENT SCHEDULE)
	EQUIPMENT NO. (SEE EQUIPMENT SCHEDULE)
	FIXTURE REFERENCE: TOP=TYPE, BOTTOM=LAMP QTY & WATTS

GENERAL CONSTRUCTION NOTES:

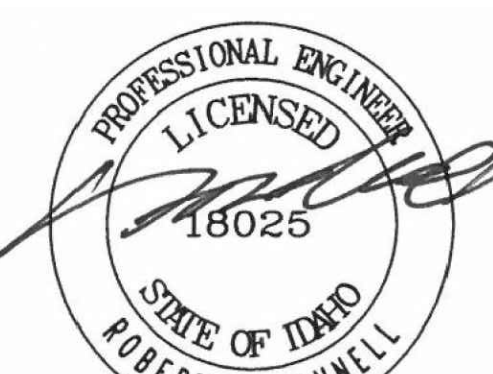
CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGHLY REVIEWING THE PLANS AND SPECIFICATION DOCUMENTS PRIOR TO THE START OF ANY WORK.
ALL DIMENSIONS ARE MEASURED TO THE CENTER OF THE DEVICE ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED AS IS STANDARD BUILDING PRACTICE.
ALL ELECTRICAL PLANS ARE DIAGRAMMATICAL AND THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF DEVICES AND FIXTURES.
THE ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTATION AND COORDINATE WITH ALL OTHER TRADES THROUGHOUT THE COURSE OF THE PROJECT.
ALL WORK SHALL BE IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL CODES. CONTRACTOR SHALL BE RESPONSIBLE TO BE INFORMED OF ALL SUCH CODES AS THEY APPLY TO THE SCOPE OF THE PROJECT.

- SYMBOLS & ABBREVIATIONS MAY OR MAY NOT APPLY TO PROJECT
- REFER TO LOW VOLTAGE DRAWINGS FOR ASSOCIATED SYMBOLS

SYSTEM COMMISSIONING
IECC SECTION C408.

CONTRACTOR RESPONSIBILITIES (AS THEY APPLY BY TRADE)

- THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL THE REQUIREMENTS OF IECC SECTION C408.
- THE CONTRACTOR SHALL HIRE AND UTILIZE AN APPROVED CX AGENT
- THE CX AGENT SHALL
 - PREPARE A CX PLAN
 - OVERSEE THE TAB MEASUREMENTS
 - CONDUCT THE PREFUNCTIONAL AND FUNCTIONAL TESTS
 - PREPARE THE PRELIMINARY CX REPORT
 - PREPARE THE FINAL CX REPORT
 - REVIEW THE TAB REPORT
 - REVIEW THE O&MS
 - PREPARE THE SYSTEMS MANUALS
- SYSTEMS REQUIRED TO BE COMMISSIONED
 - SERVICE WATER HEATERS.
 - MIXING VALVES AND RECIRC SYSTEMS.
 - ROOF TOP UNIT -HALLWAY VENTILATION.
 - SPLIT SYSTEM FAN COILS.
 - PTHPs (SAMPLE SELECTION).
 - DWELLING UNIT EXHAUST FANS (SAMPLE SELECTION).
 - LIGHTING CONTROL SYSTEMS.
 - OCCUPANCY SENSORS.
 - EMERGENCY POWER SYSTEMS (GENERATOR).
 - THERMOSTAT OPERATIONS AND SET POINTS.
 - FIRE PIT AND BBQ TIMERS AND AUTO-SHUT OFF.
 - FIRE PUMP AND DOMESTIC WATER BOOSTER PUMP.



08/08/2019

ADD 01 / PERMIT REV.

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100% SD	03.04.2019
100% DD	04.26.2019
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PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01 PERMIT REV 1	
ADD 01 PERMIT REV 2	10.18.2019

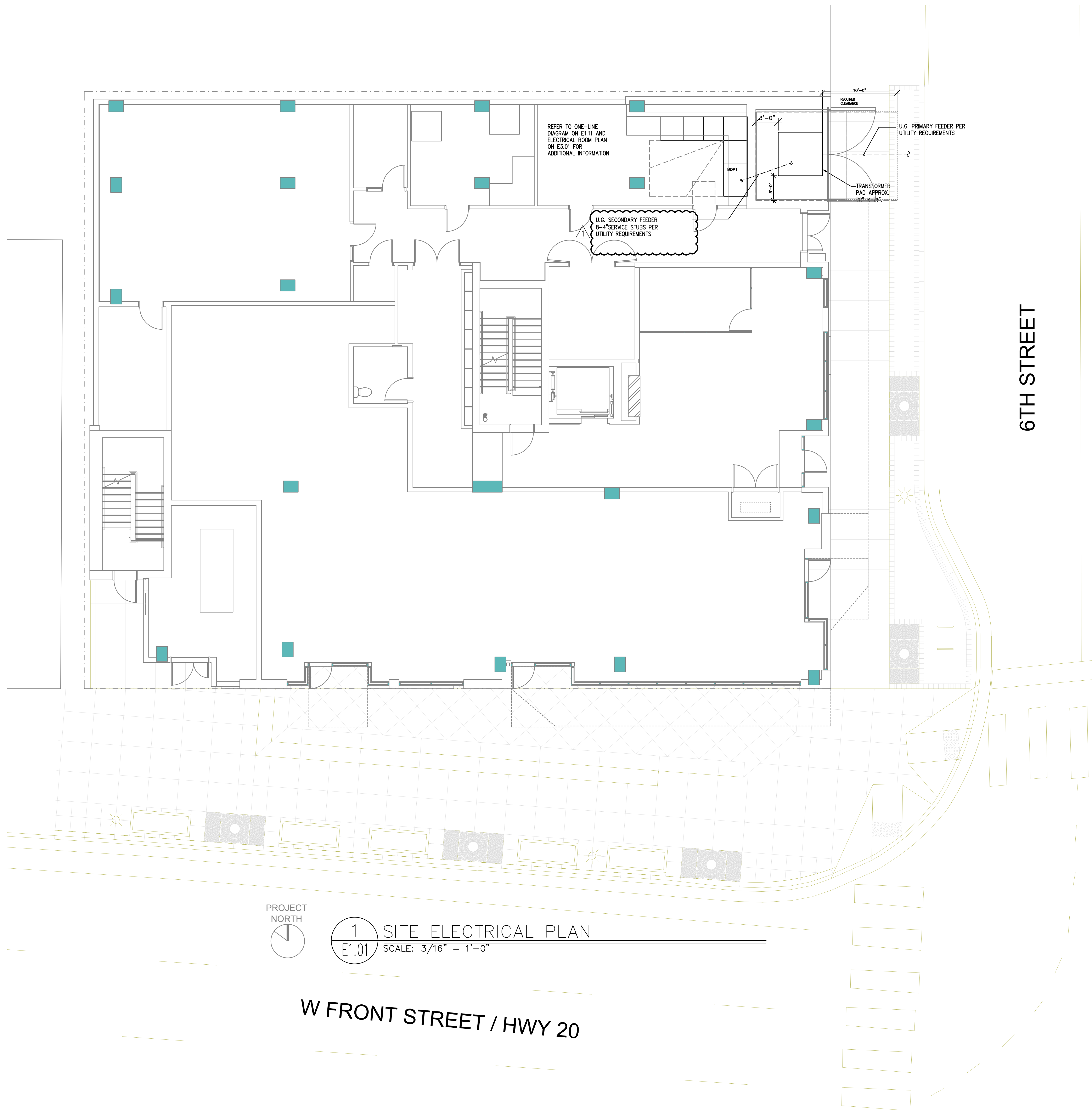
revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
SITE ELECTRICAL PLAN

sheet:
E1.01

GENERAL NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. REFER TO CIVIL ENGINEERING PLANS FOR EXITING UTILITY LOCATIONS.
- C. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH IDAHO POWER'S ELECTRICAL SERVICE REQUIREMENTS.
- D. COORDINATE WITH LOCAL UTILITY PROVIDER FOR EXACT SERVICE CONDUIT AND CONDUCTORS REQUIREMENTS.
- E. LOCATION AND INSTALLATION OF PRIMARY AND SECONDARY SERVICE FEEDER CONDUITS, TRANSFORMER, VAULT & PAD SHALL BE PER THE UTILITY PROVIDER'S REQUIREMENTS.
- F. U.G. PRIMARY FEEDER SHALL HAVE A MINIMUM 48 INCH BURY.
- G. U.G. SECONDARY FEEDER SHALL HAVE A MINIMUM 36 INCH BURY.
- H. SECONDARY CONDUIT SWEEPS SHALL BE HAVE A MINIMUM RADIUS OF 60" WITH A MINIMUM OF 7'-0" OF STRAIGHT CONDUIT RUN BETWEEN SWEEPS, OR AS DIRECTED BY THE UTILITY PROVIDER.
- I. REFER TO THE ONE-LINE DIAGRAM ON SHEET E1.11 FOR ADDITIONAL INFORMATION.
- J. CUSTOMER TO PROVIDE ALL TRENCHING AND BACKFILLING. TRENCH TO BE 36 INCHES DEEP AND 30 INCHES WIDE, MEASURED FROM FINAL GRADE.
- K. CONTRACTOR TO LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE TRENCHING. COORDINATE WITH CIVIL ENGINEER.
- L. ALL UTILITY SERVICE CONDUCTORS TO BE INSTALLED IN GREY SCHEDULE 40, ELECTRICAL GRADE, PVC CONDUIT WITH NYLON PULL STRINGS (MIN 500 LBS. TEST). THE UTILITY PROVIDER SHALL DETERMINE THE SIZE AND NUMBER OF CONDUITS REQUIRED. ALL ELBOWS TO BE 36 INCH (MIN) RADIUS. ALL BENDS MAY BE FACTORY MADE. IF MORE THAN 270 DEGREES OF BENDS OR IF RUN IS LONGER THAN 150 FEET, BENDS MUST BE RIGID STEEL.
- M. CONSULT WITH THE IDAHO POWER COMPANY (IPC) REPRESENTATIVE 2 WEEKS BEFORE STARTING MAIN POWER TRENCHING FOR A PRECONSTRUCTION CONFERENCE. INCLUDED IN THIS CONFERENCE WILL BE EXCAVATOR, IPC, TELCO, CATV, AND GAS.
- N. REFER TO SHEET E2.01 FOR BUILDING MOUNTED LIGHT FIXTURES. ANY STREET LIGHTING SHALL BE UNDER A SEPARATE CONTRACT, BY OTHERS AND IS NOT A PART OF THIS PROJECT'S SCOPE.



1 SITE ELECTRICAL PLAN
E1.01 SCALE: 3/16" = 1'-0"

W FRONT STREET / HWY 20

600 W FRONT STREET

BOISE, IDAHO

JOB NO. 18-044.00

META INC. Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PHN: (503) 234-0548
FAX: (503) 234-0677
WWW.META-ENG.COM
CONTACT: DENISE TAYLOR



08/08/2019

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- B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.

STREET LIGHTING NOTES:

- A. STREET LIGHTING SHALL MEET ALL CITY OF BOISE REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH THE CITY'S REQUIREMENTS PRIOR TO THE START OF ANY WORK.
- B. REFER TO SHEET E1.03 FOR STREET LIGHTING PHOTOMETRIC STUDY.
- C. STREET STATIONING SHOWN IS BASED ON THE CENTER OF THE INTERSECTION(S) IS EQUAL TO '0'.
- D. REFER TO SHEETS E1.04 THRU E1.06 FOR FIXTURE INFORMATION AND CITY REQUIREMENTS.

KEYED LIGHTING NOTES:

- 1. ALIGN POLE MOUNTED STREET LIGHT WITH THE FIXTURE DIRECTLY ACROSS, ON 6TH STREET.

SYMBOL LEGEND

- EXISTING POLE MOUNTED STREET LIGHT/SIGNAL
- POST TOP AREA LIGHT

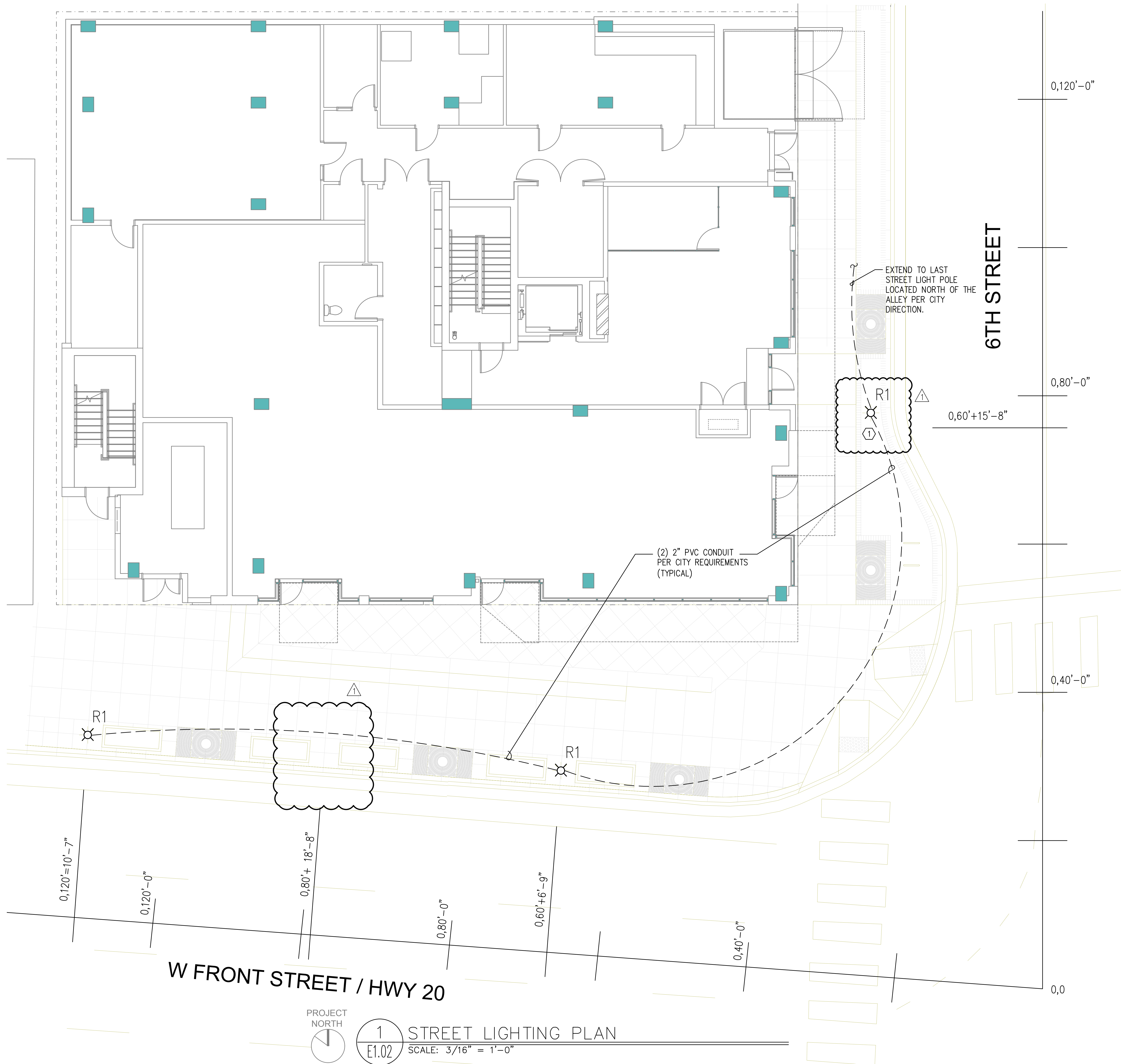
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2 REV 02	10.18.2019

title:
STREET LIGHTING PLAN

sheet:
E1.02



1 STREET LIGHTING PLAN
E1.02 SCALE: 3/16" = 1'-0"

600 W FRONT STREET

BOISE, IDAHO

JOB NO. 18-044.00

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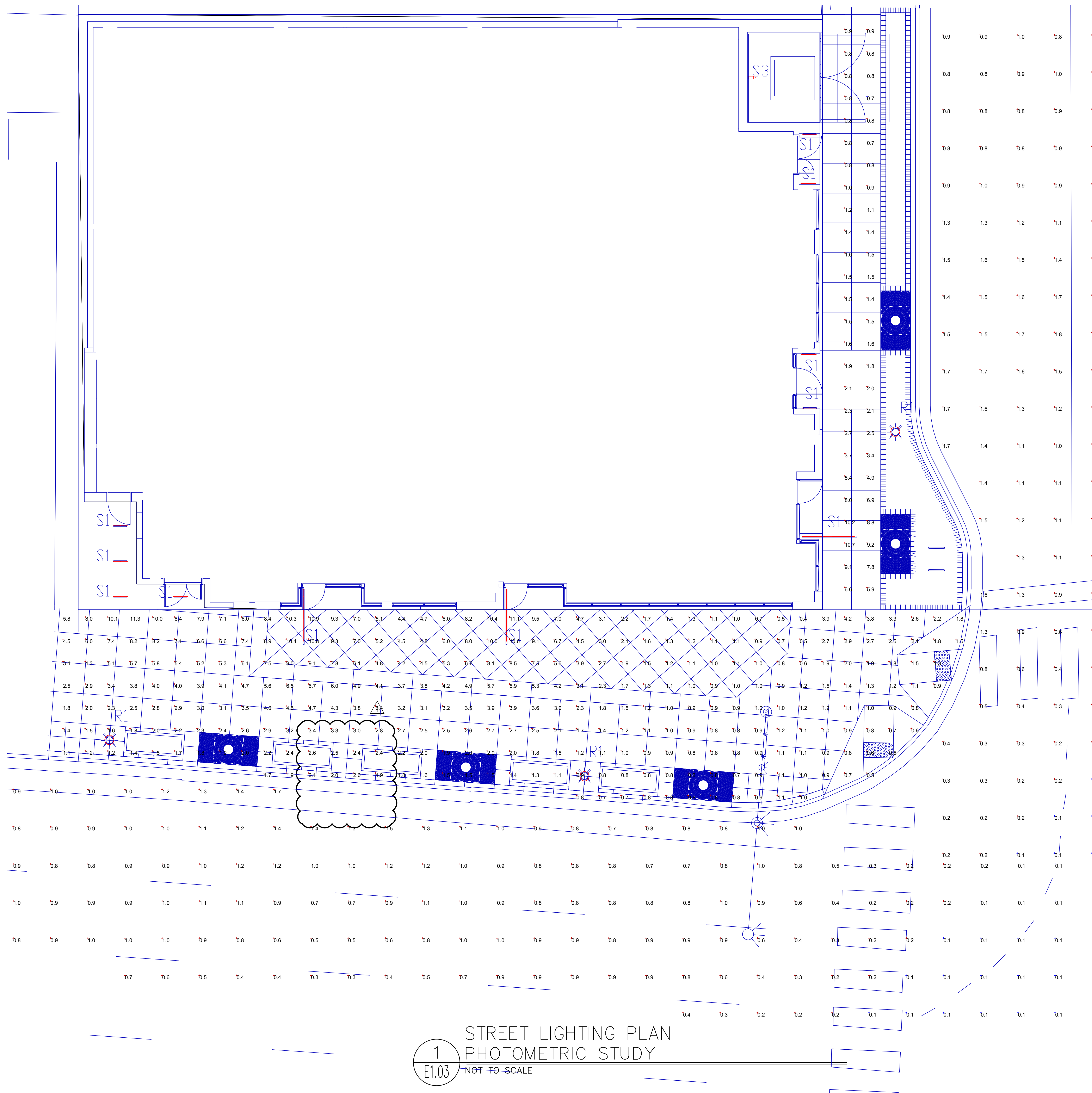
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STREET LIGHTING PLAN
PHOTOMETRIC STUDY

sheet:

E1.03



STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
6TH STREET	+	0.9 fc	1.8 fc	0.1 fc	18.0:1	9.0:1
6th Street Sidewalk	+	2.9 fc	10.7 fc	0.7 fc	15.3:1	4.1:1
Front Street Sidewalk	+	3.2 fc	11.3 fc	0.4 fc	28.3:1	8.0:1
W. FRONT STREET	+	0.7 fc	1.7 fc	0.1 fc	17.0:1	7.0:1

NOTES

1. Photometric studies are for reference only and shall not be used for construction purposes.
2. Photometric data is based on manufacturer supplied IES files. Illuminance calculations are approximated and may differ from actual field measurements.
3. Luminaire type "R1" is per the City of Boise approved materials for street light fixtures. Refer to E1.04 for additional information.
5. Photometric study based on requirements as directed by the City of Boise Public Works Department.
6. This photometric study does not include existing street light fixtures or light fixtures on adjacent properties.
7. This photometric study does not include building mounted light fixtures.

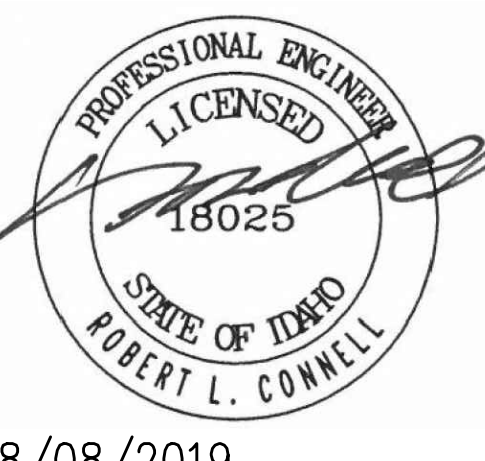
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E1.03
STREET LIGHTING PLAN
PHOTOMETRIC STUDY
NOT TO SCALE

600 W FRONT STREET

BOISE, IDAHO

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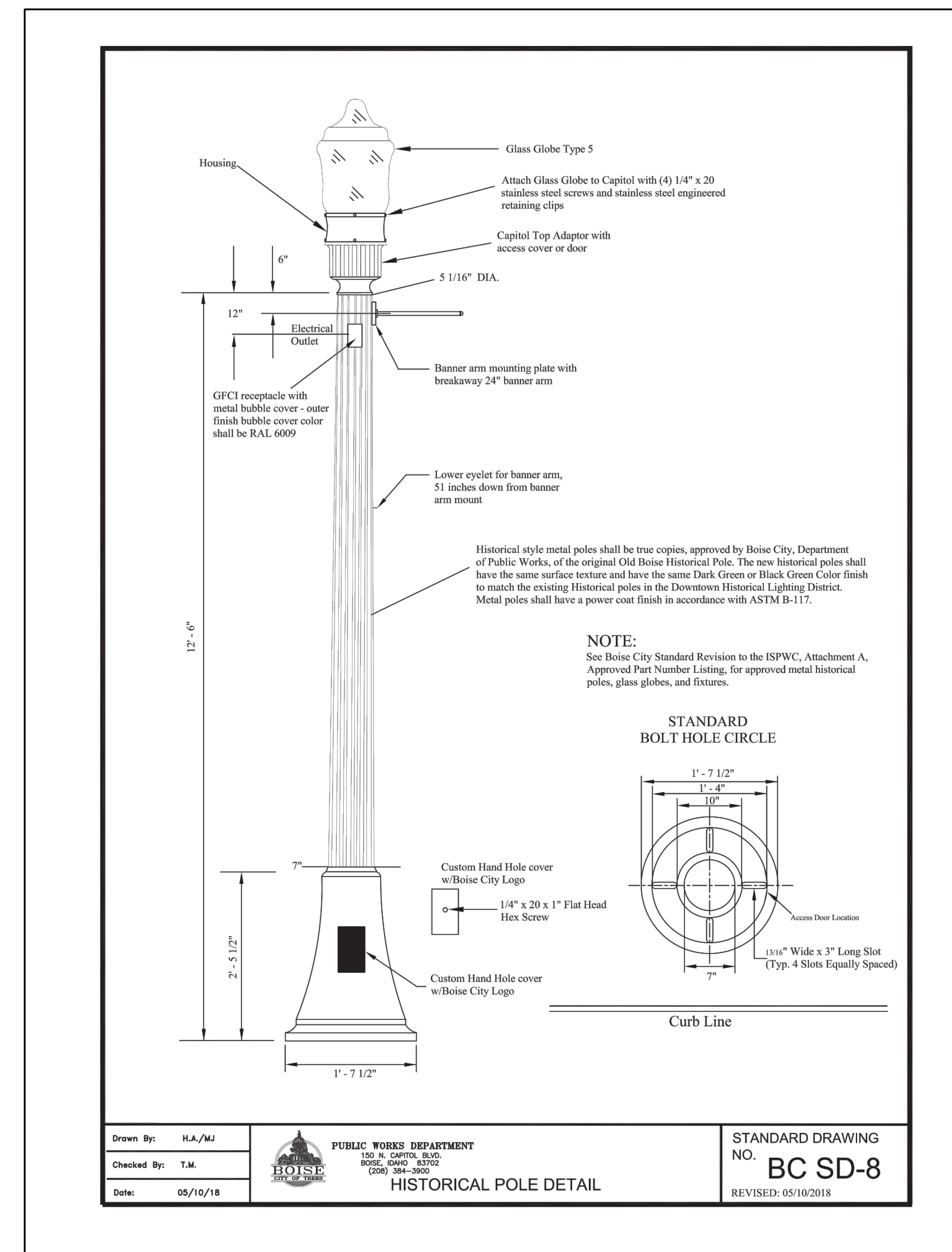
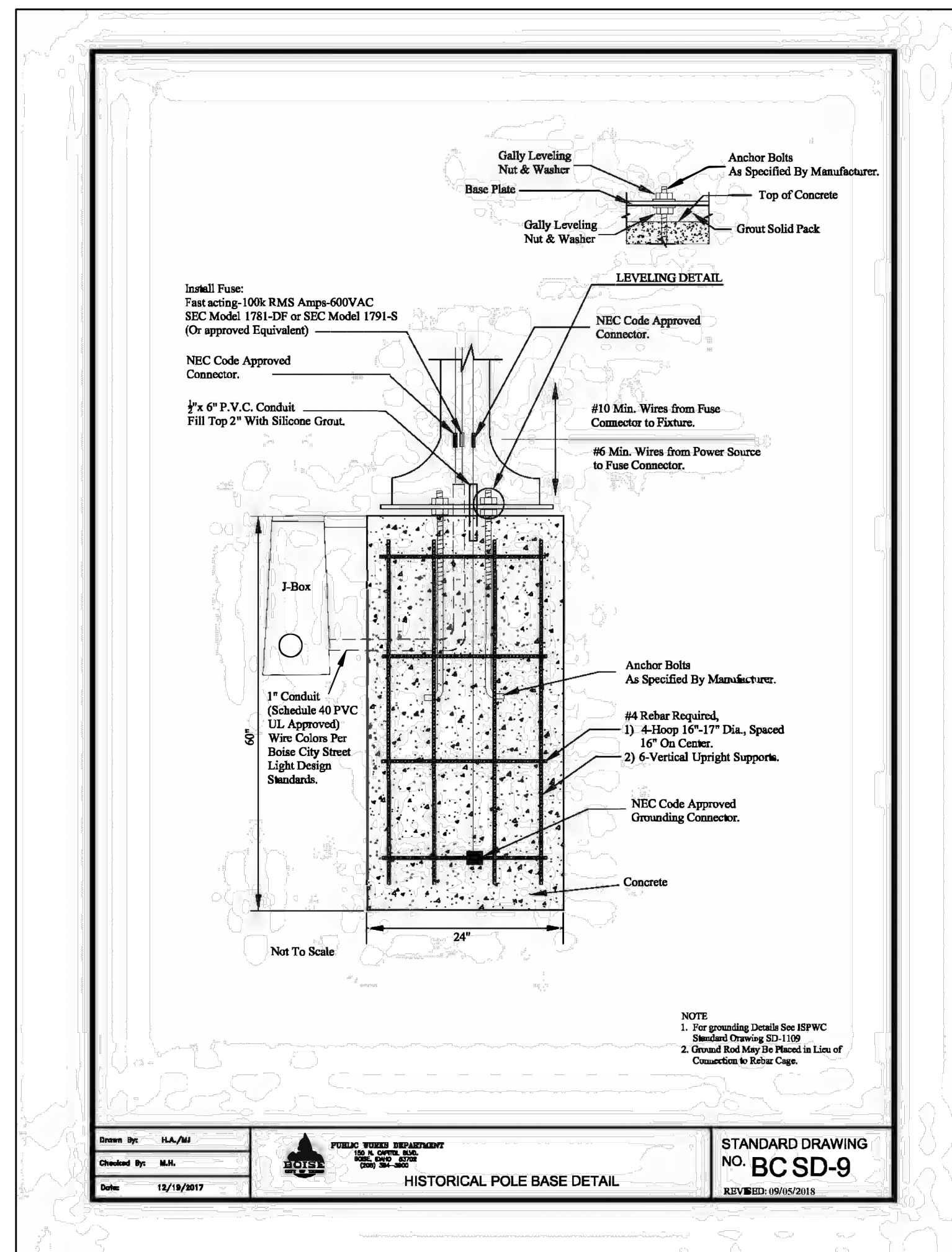
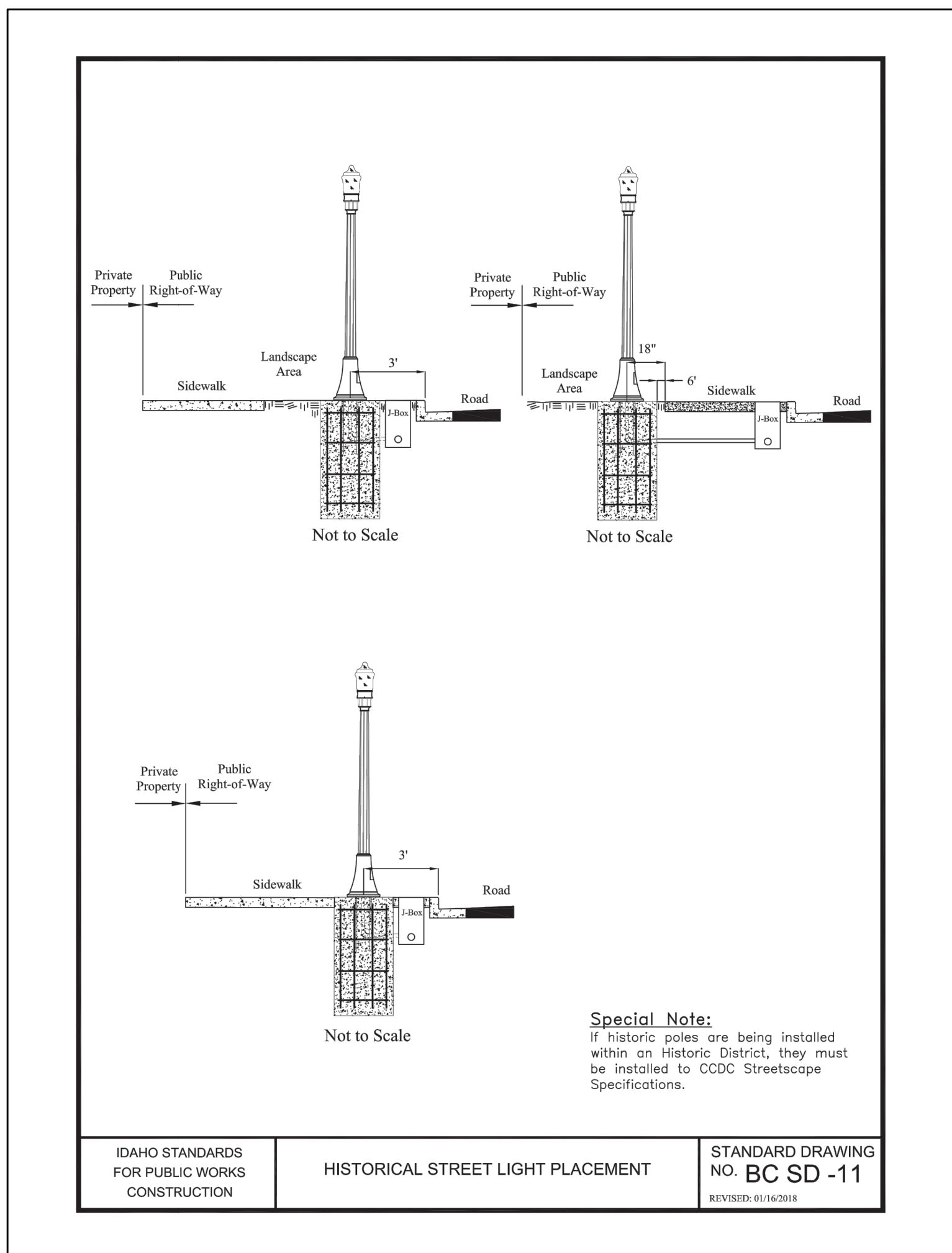
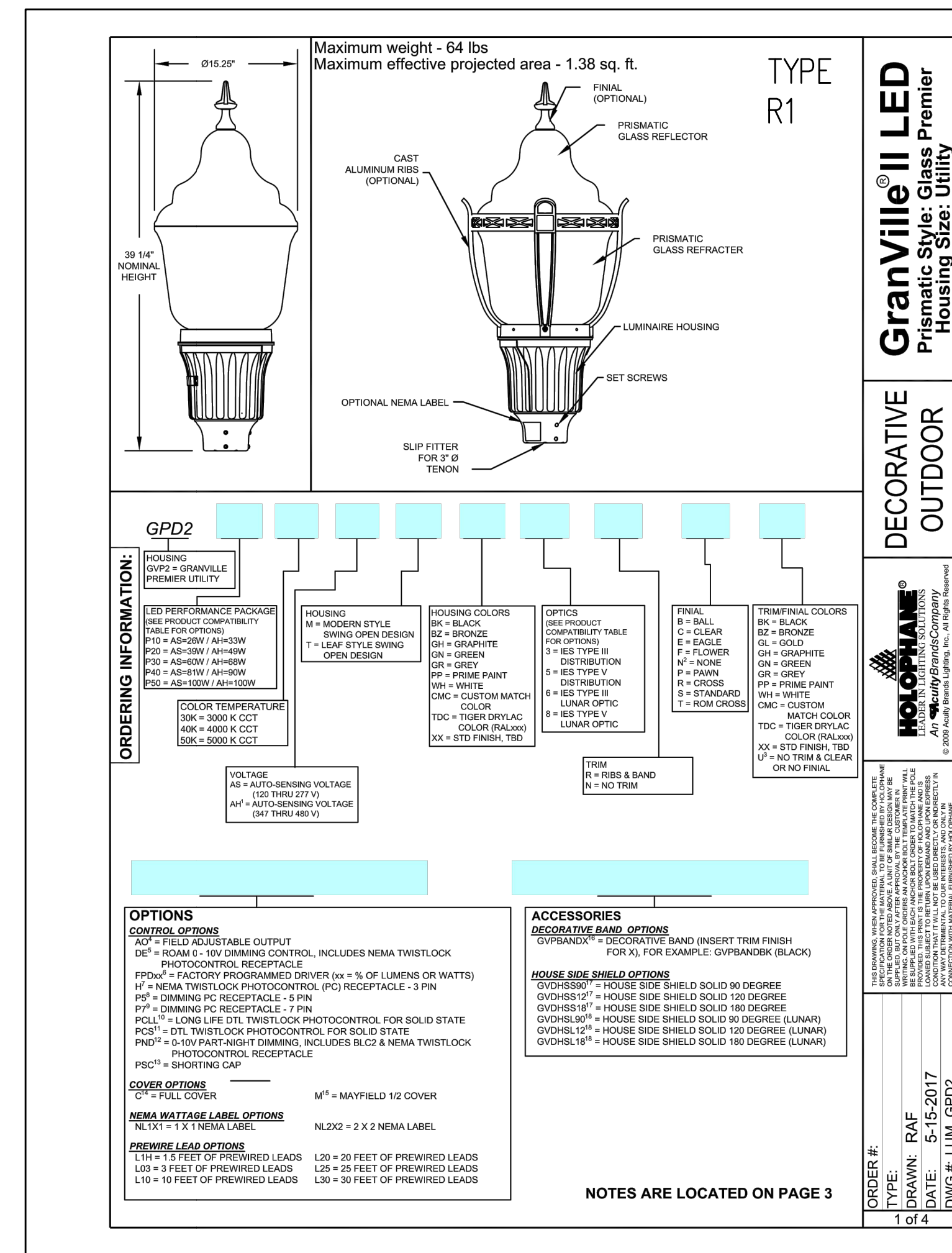
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STREET LIGHTING
DETAILS

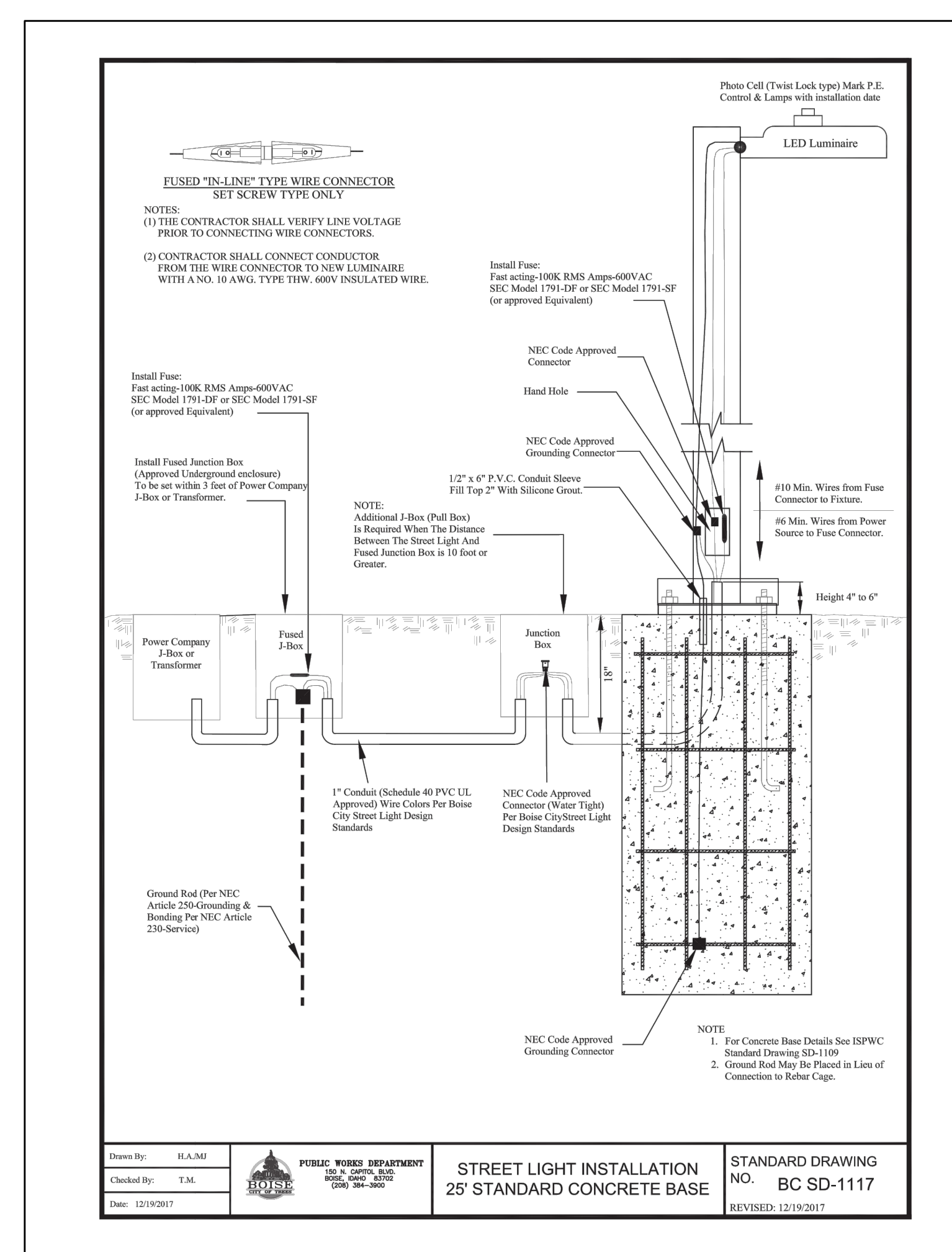
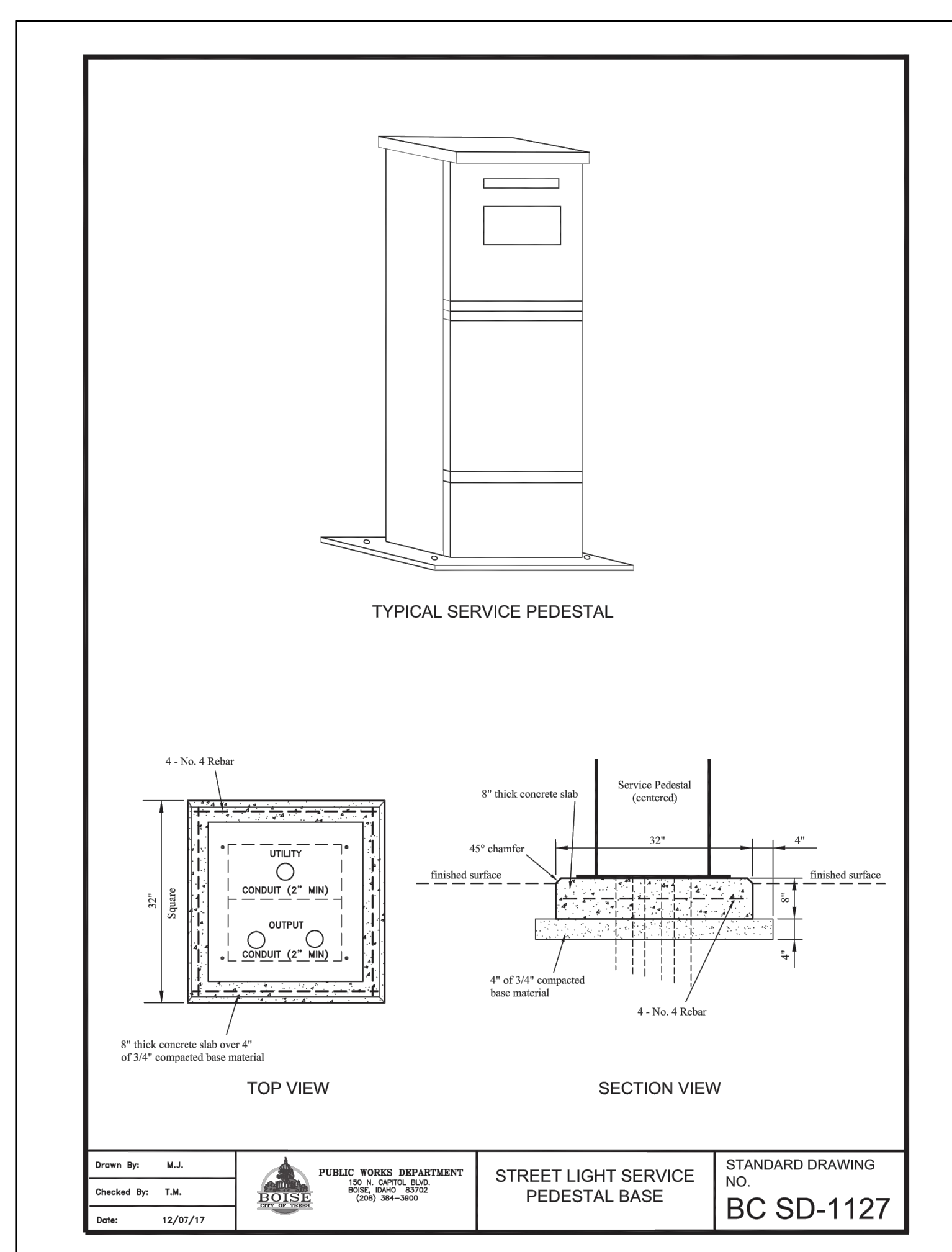
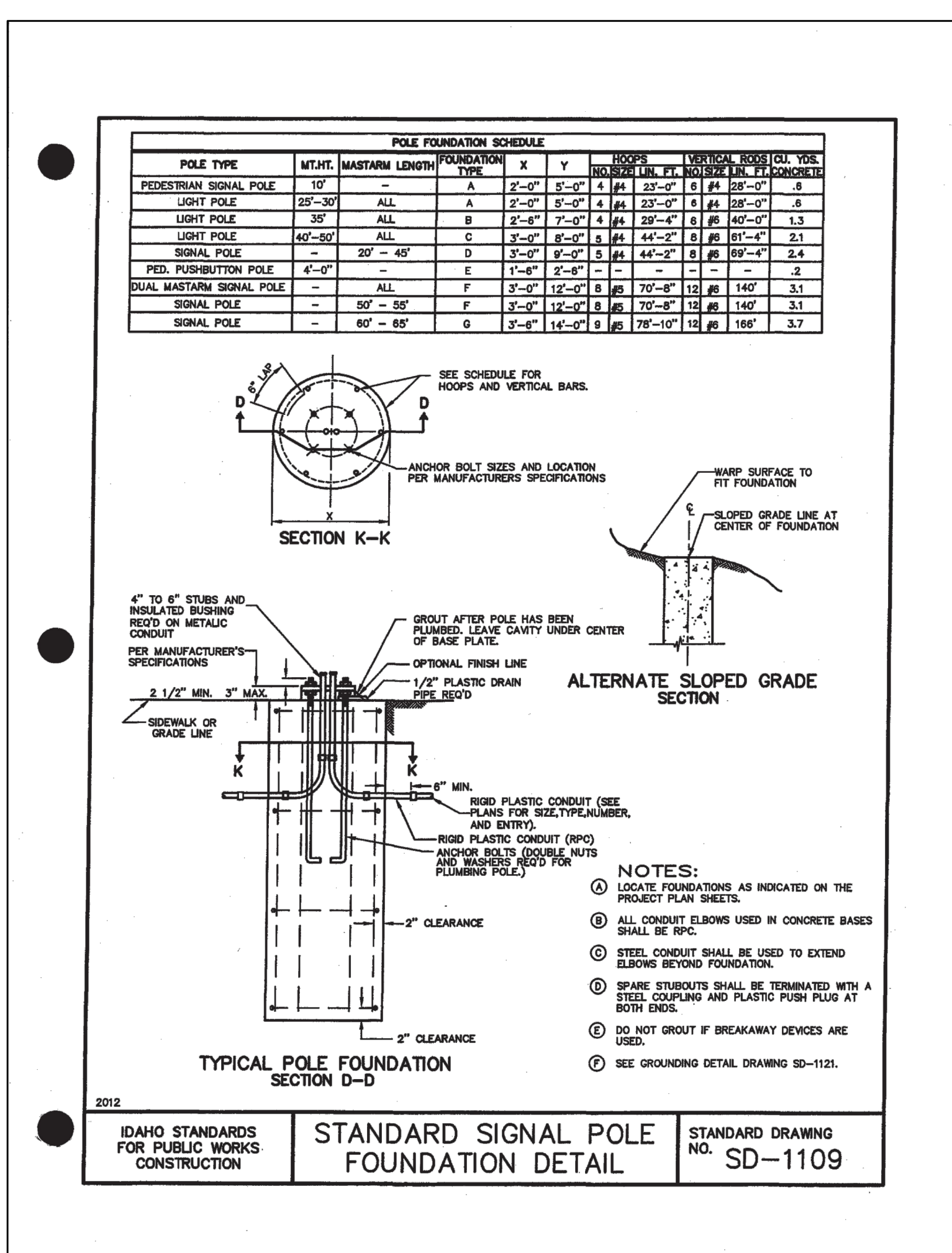
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E1.04



LIGHTING FIXTURE LIST - STREET LIGHTING

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
R1	LED 5000K 5245 LM 39W	HOLOPHANE LIGHTING (OR APPROVED EQUAL)	GVD2 P20 50K AS M-RAL6009 5 NNU	TYPE: POST TOP STREET LIGHT MOUNTING: POLE MOUNT (+12'-0") HOUSING: ALUMINUM LENS/REFL: BOROSILICATE GLASS VOLTAGE: MVOLT BALLAST: LED DRIVER	FIXTURE SHALL BE PER THE CITY APPROVED MATERIALS AND INSTALLED IN ACCORDANCE W/ CITY REQUIREMENTS. TYPE V DISTRIBUTION

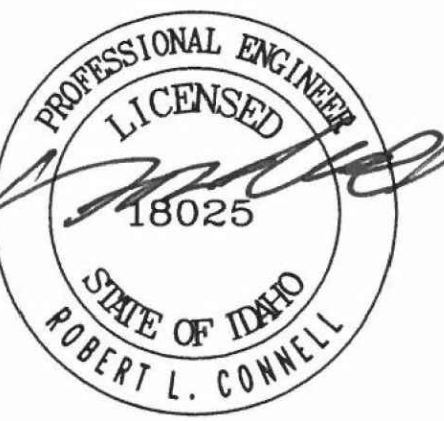


600 W FRONT STREET

BOISE, IDAHO

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City of Boise Public Works Street Light Requirements

January 2, 2018

Conductor
All conductors in Cabinets, Junction Boxes, and Conduits shall be AWG # 6 copper
AWG # 10 conductors shall only be used inside light poles

- Neutral wire shall be **white** NEC 200.6
- The ISPMC does not allow phase tape to be used
- NEC states the Grounding wire shall be **green**

Circuits

- Lighting circuits are 30A 2P **NOT** 120V for meter cabinets
- "A" phase is Black
- "B" phase is Red
- Receptacle conductors are Blue & White

Bonding

- NEC 250-148 Continuity and Attachment of Equipment Grounding Conductors to Boxes & their cover with the use of a # 6 compression lug.
- Light pole, Pole Base, and Fixture shall be connected to the Grounding Wire

Cabinets

- Ground rod should be bonded with the grounding bar
- The neutral bar shall be bonded with the grounding bar at point of service
- 2" conduit should feed all cabinets on the line side (Idaho Power side)
- 2" conduits for all load side for Historical Poles or downtown
- 1" conduits are acceptable for subdivisions or small commercial projects on load side, ask the Street Lighting Technician if in doubt (Tom) 208-440-2320
- Must have a test switch in all cabinets
- Must have photo cell designed by the cabinet maker installed in cabinet. **NO** EXCEPTIONS
- No ladders in meter cabinets
- City of Boise Planning and Development Services Electrical Inspector (208-608-7070) must inspect all cabinets before a final inspection by Public Works
- Must have Electrical permit for new service

Website
Cityofboise.org → Public Works → Development Permits or Requirements → Street Lights

Please contact Tom with any questions.
208-608-7526
tmarshal@cityofboise.org

1

Wire Connectors

The only acceptable wire connectors for all underground installations for street lights:

POLARIS® EDGE
For Street Lighting

NSI ISPB2/0 1 IN / 1 OUT
NSI ISPB2/0-2 2 PORT
NSI ISPB2/0-3 3 PORT
NSI ISPB2/0-4 4 PORT
NSI ISPB2/0 1 IN / 2 OUT

HOMAC USL 30

Historical poles

- Must have GFCI receptacles with TayMac Metal Bubble cover (MXS280S) with outer finish color RAL6009 or similar.
- Must have Banner Arm, Eye Bolt
- See Drawing BC SD-9 & BC SD-9

Inspections

- Call Public Works Inspections at 208-608-7549 to schedule inspections
- Contractor must be onsite for all inspections
- Arc Fault current shall be labeled at Pole and/or cabinet

Website
Cityofboise.org → Public Works → Development Permits or Requirements → Street Lights

Please contact Tom with any questions.
208-608-7526
tmarshal@cityofboise.org

2

BOISE CITY STANDARD REVISIONS FOR ISPMC DIVISION 1102 STREET LIGHTS

GENERAL INFORMATION

All work shall conform to the requirements of the most current edition of the National Electrical Code, the Idaho Standards for Public Works Construction (ISPMC), and the Supplementary Conditions and these Standard Revisions. Contractor shall become familiar with these documents to ensure full understanding of the requirements of this Project. Failure to do so does not relieve the Contractor of the duties, obligations and responsibilities addressed within those documents.

The Idaho State Electrical Board has determined that all street lights are to be provided with an external fuse disconnect, in a junction box between the power source and the street light pole. See attached standard drawings for connection requirements.

Street light installations inspections will be required for the concrete base reinforcing, the trench depth and bedding, and for the pole. Contact City of Boise at 208-608-7526 for inspections, 48 hour notice required. Contractor shall notify the City when street light is ready for turn on.

Attachment A lists approved products for Boise City street light installations. Contact Boise street light staff to seek approval for any substitute products.

REVISIONS TO THE STANDARD SPECIFICATIONS

SECTION 1102

STREET LIGHTING

PART 2 MATERIALS

2.2 JUNCTION BOXES

2.2.A Replace with the following:
Junction boxes in driveways or roadways are not allowed.

2.2.B Replace with the following:
Junction boxes in sidewalks and similar areas to be concrete with steel lid and this lid must be bonded to the equipment grounding conductor with the use of a #6 compression lug.

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Add the following:

2.2.C Junction boxes in landscape areas may be plastic or fiberglass.

2.2.D All junction boxes to have a means to secure lid (i.e. bolt).

2.2.E See Attachment A for approved products.

2.2.F J-boxes used at the Idaho Power service connections may not use a metal lid.

2.3 FUSE HOLDERS

A.1. Add the following sentence.
Fuses for Boise City installation shall be fast acting – 100k RMS Amps-600VAC.

B.1. Add the following sentence.
Fuses for Boise City installation shall be fast acting – 100k RMS Amps-600VAC.

2.4 CONDUCTOR

B.2 Add the following sentence.
Phase "A" shall be colored Black, phase "B" shall be colored Red, and the receptacle conductors shall be in Blue and White.

2.7 DISCONNECT BOXES

Add paragraph D

D. Disconnect boxes are only required for overhead wiring.

2.8 MAST ARMS FOR WOOD POLES NOT USED FOR BOISE CITY INSTALLATIONS.

2.9 WOOD POLES NOT USED FOR BOISE CITY INSTALLATIONS.

2.10 METAL POLES

Add the following paragraph:

F. Poles may be square, round or tapered round. Decorative poles are prohibited. Poles for decorative fixtures (approved by the City) are to be round. See Street Light Approved list on the web page for approved poles for decorative fixtures.

2.11 FIBERGLASS POLES NOT USED FOR BOISE CITY INSTALLATIONS

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2.12 HISTORICAL POLES

Replace with the following:

A. Historical style metal poles shall be true copies, approved by Boise City, Department of Public Works, of the original Old Boise Historical Pole. The new historical poles shall have the same surface texture and have the same Dark Green or Black Green color finish that matches the existing Historical poles in the Historical Lighting District. Metal poles shall have a powder coat finish in accordance with ASTM B-117.

B. Historical poles for the City of Boise shall be cast aluminum, in style and texture of the original Old Boise Historical Pole (see standard drawing BC SD-8). See Attachment A for approved products.

C. Color: To match existing poles, approved color mix for Sherwin Williams DTM Acrylic Coating RAL 6009 Fir Green Order #0174795.

D. Additional pole requirement for historic lights installed within the Capitol City Development Corporation (CCDC) shall be:

- Poles shall be supplied with a GFCI receptacle with a metal bubble cover having the same color as the pole as shown on standard drawing BC SD-8.
- Poles shall be supplied with a manufacturer's adapter for installation of the approved banner arms and a breakaway banner arm. The adapter or banner arm shall face the building or lot only.

2.13 BOLLARDS NOT USED FOR BOISE CITY INSTALLATIONS.

2.14 PREFABRICATED BASES NOT USED FOR BOISE CITY INSTALLATIONS.

2.15 SERVICE PEDESTAL

Add the following:

C. See Street Light Approved list on the city web page for approved products.

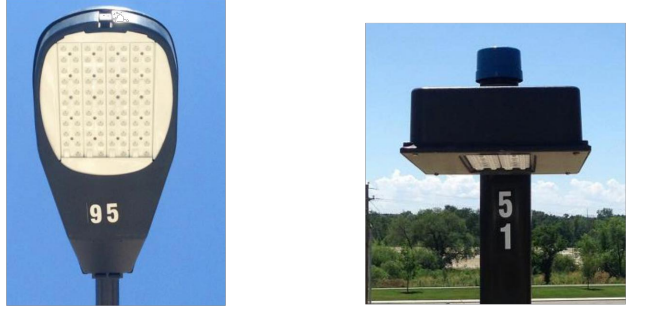
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2.16 LIGHT FIXTURES

Replace paragraph A. with the following and add G.:

A. Fixture light level as required by Boise City Public Works. See Attachment A for approved products. Class "A" residential, Class "B" collector/general roadway.

G. Effective 1 October, 2015 all fixtures installed shall be labeled with the fixture wattage using a label meeting ANSI C136.15-2011 using the large type. If the manufacturer does not supply the ANSI label then the installer shall mark the fixture with the fixture wattage using black labels with white numbering a minimum of 1.5 inches wide by 2.5 inches high on the bottom of the fixture visible from the ground. If there is not sufficient area on the bottom of the fixture, the wattage label shall be placed on the pole just below the fixture. See examples below. The only exception to this requirement shall be the City of Boise Historical Pole and Fixture. It will not require any wattage label.



PART 3 WORKMANSHIP

3.2 JUNCTION BOX INSTALLATION

Modify paragraph D: Do not install in any driveway or roadway.

3.3 WIRE OR CONNECTORS

Add the following item:

F. For all street lighting installations within the City of Boise the only approved connectors for # 6 or larger wire shall be a split-bolt type connector for ground wires. Waterproof connectors from the Street Light Approved list on the city web page for all other conductors.

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3.4 CONDUIT INSTALLATION

B. Underground:

Modify item 5 to read: "Locating wires only required for conduit in which the conductors are not installed in conjunction with the conduit."

Add the following item:

9. For historical street lights within the Capital City Development areas, an additional, parallel conduit shall be installed from the street light to the control cabinet to accommodate a separate circuit for the outlets on the poles.

3.6 DISCONNECT BOXES NOT USED FOR BOISE CITY INSTALLATIONS.

3.7 GROUNDING

Add to paragraph C, reference to City of Boise standard drawing BC SD-1117 and ISPMC Standard Drawings.

3.8 CONCRETE POLE BASES

In paragraph F., add reference to City of Boise standard drawing BC SD-9 Historical Pole base.

3.9 POLE INSTALLATION

In paragraph B., delete reference to wood and fiberglass poles.. Add reference to City of Boise standard drawing BC SD-11.

G. NOT USED FOR BOISE CITY INSTALLATIONS

3.11 SERVICE PEDESTAL

Modify paragraph A: Service pedestals shall be installed in accordance with standard drawing BC SD-1127.

In paragraph B., Add the following sentence:

Service pedestals connected to historical street lights in the downtown core shall conform to SD-1126 with an additional meter connected to the electrical outlet circuit. Contact Public Works to verify if your locations will need to meet this requirement. See Street Light Approved list on the city web page for approved products.

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ADDITIONAL CITY OF BOISE STANDARD DRAWINGS ATTACHED

BC SD-8 HISTORICAL POLE DETAIL

BC SD-9 HISTORICAL POLE BASE DETAIL

BC SD-11 HISTORICAL STREET LIGHT PLACEMENT

BC SD-1127 STREET LIGHT SERVICE PEDESTAL BASE

EXAMPLE OF THE ANSI C136.15-2011 LED WATTAGE LABEL

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BOISE CITY STREET LIGHT PLAN REVIEW REQUIREMENTS AND CHECK LIST

Lighting Project Name _____

Project Address _____

DLP or SUB File Number _____ Electrical Contractor _____

Work must conform to Boise City Street Light specifications (see www.cityofboise.org for more information).

- LED Fixture Type / List Quantity (equipped twist lock photo cell receptacle and wattage label):
___ Shoe Box ___ Historical ___ Cobra Head ___ Decorative
___ Class A ___ Class B ___ Historical Poles
- LED Wattage Class / List Quantity and specific fixture wattage for each fixture to be used:
___ 15 (standard approved Boise City historical poles)
___ 25 (standard pole height - residential or residential collectors)
___ 30 (standard pole height - arterial & major collectors)
- Pole Height / Street Classification/Quantity
___ 15 (standard approved Boise City historical poles)
___ 25 (standard pole height - residential or residential collectors)
___ 30 (standard pole height - arterial & major collectors)
- Base & Pole Type (Only black or dark bronze approved for pole color. Contractor Option)
___ Concrete base (metal poles only) refer to PW standard drawing
___ Direct burial base (fiberglass, metal poles only)
- Mast Arm Length (for mast arms longer than 6')
___ List total length of required mast arm in feet _____ ft.
- Method of Grounding (contractor option, check one) refer to PW standard drawing
___ Ground rod
___ Bare #6 copper connected to re-bar cage

Required Drawing information:
The construction drawings shall be on a large enough scale to identify the following features:

- ___ Pole locations
- ___ Power source locations such (e.g., junction boxes, transformer, or overhead poles); verify with Idaho Power
- ___ Overhead power lines that exist within 20' of any proposed light installations.
- ___ Dimensioning light locations to a key reference point in the field.
- ___ Both public right-of-way and street light easements. (If new lighting facilities are not located within the public right-of-way)
- ___ Minimum drawing sheet size for subdivision or individual street lights.
___ 1" = 100 ft. On 8 1/2" x 11" or larger or minimum drawing sheet size for formal lighting Designs. 1" = 100 ft. On 24" x 36" sheet.
- ___ Show all locations of the Schedule 40 PVC UL labeled conduit along with conduit size to be installed, over 10 ft. in length and indicate a maximum conduit installation off-set behind the back of each walk of 10".
- ___ Show Available Fault Current calculation at each service connection to Idaho Power.

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8. Note's required on all Construction Drawings:

- Contractors installing lighting will be required to contact Boise City Public Works Inspection Section 48 hrs. prior to schedule the preliminary inspection prior to placing concrete or covering conduits. In addition, the electrical contractor is required to call 34 hrs. in advance to schedule a final inspection by the Boise City Public Works Inspection Section after all work has been completed. Electrical Contractor must be present at all inspections. (To schedule your Public Works Inspection, phone 608-7549) For metered services an additional inspection is required by the electrical inspector having jurisdiction at the projects location (Boise city within city limits, State if in the county within the city's area of impact.
- For design information or question, contact Tom Marshal, (208) 608-7526
- All Street Lights shall be installed per ISPMC/NEC Codes, ACHC codes for working with in the public right-of-way, and Boise City Public Works street light standard revisions to the ISPMC.
- Developer shall not connect, or allow any subcontractor to connect any irrigation timers, decorative lighting, entrance lighting, or outlets of other electrical devices to any street lighting circuits. Any and all irrigation timers, decorative lighting, entrance lighting, outlets or other electrical devices shall be connected directly to Idaho Power at an Idaho Power approved location via a separate conduit system.

Work must conform to Boise City Street Light specifications (see www.cityofboise.org for more information).

9. Notes to be included on the drawings or as attachments if they apply:

- ___ Underground wire shall be #6 copper, AWG, THWN, 600 volt insulated (no aluminum wire)
- ___ Overhead wire can be either #6 copper or aluminum duplex with a ASGR neutral Messenger
- ___ All electrical conduits shall be schedule 40, PVC, UL labeled
- ___ A locating wire is required in all empty PVC Electrical conduits

10. Notes Required When Street Light Electrical Service Cabinets are used:

- ___ For service cabinet installation, an electrical permit is required from Boise City Building Department or the state if located in the county.
- ___ Inspection of service cabinets within the city will be through Boise City Building Department Electrical Section as well as the Public Works Inspection Dept. In the County, the State will inspect in addition to Public Works. The Building Department Inspection or State Inspection must be accomplished first before calling for the Public Works Final Inspection. To schedule your City Building Dept. Electrical Inspection or for permit information, phone (208) 608-7070

Upon completion of lighting design drawings, three (3) copies with the above information (either shown on or attached) shall be submitted to Tom Marshal in Public Works for approval prior to receiving a building permit.

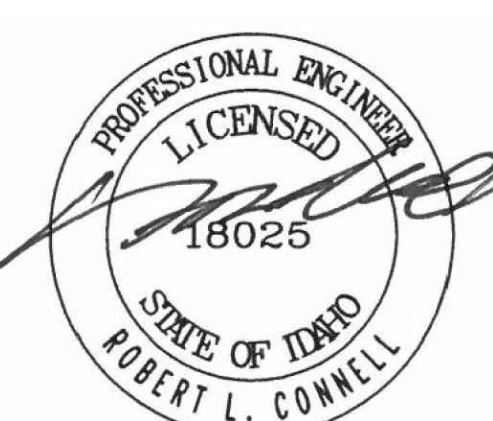
Boise STD REV to ISPMC 2017 00820 - 8 05/21/2018

title:

STREET LIGHTING DETAILS

sheet:

E1.05



08/08/2019

ADD 01 / PERMIT REV.

10.18.2019

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01 PERMIT REV 1	10.18.2019
ADD 01 PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
ELECTRICAL
ONE LINE
DIAGRAMS

sheet:

E1.11

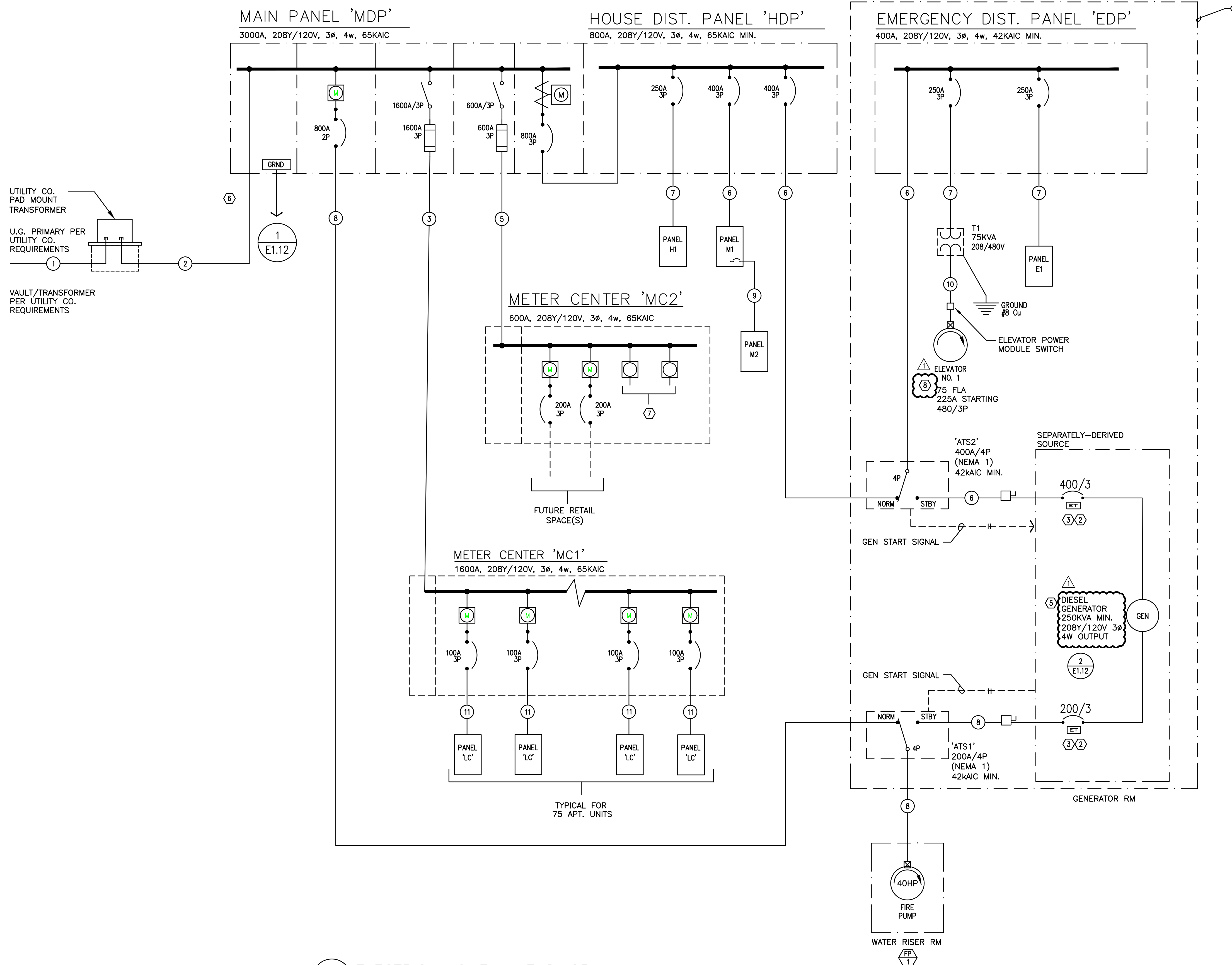
600 W. Front Mixed Use Main distribution Center 'MDP'							
LOAD:	LIGHTS	RECEPT	HEAT	MISC	EQUIP	MOTORS	LARGEST MOTOR
Panel H1	3,319	16,800	0	0	5,000	0	
Panel M1	0	0	35,252	0	500	16,761	
Panel M2	746	5,880	0	0	2,500	27,140	
Panel E1	2,575	0	0	0	17,000	40,542	
Elevator 1						62,325	62,325
Fire Pump						43,200	
Residential Meters (MC1)				437,000			
Retail Space(s) 3160sf @ 35w/sf				110,500			
SUBTOTAL	6,640	22,680	35,252	547,500	25,000	189,968	62,325
X-FACTOR	1.25	1 + .5	1	1	1	1	0.25
CODE LOAD:	8,300	16,340	35,252	547,500	25,000	189,968	15,581
CONN. LOAD:	889 KVA						
VOLTS:	208 3ph						
TOTAL CALC:	838 KVA						
CALC AMPS:	2325 AMPS						

600 W. Front Mixed Use Emergency Generator Loads							
LOAD:	LIGHTS	RECEPT	HEAT	MISC	EQUIP	MOTORS	LARGEST MOTOR
*Life Safety Loads	2,575	0	0	0	17,000	40,542	
Elevator 1						62,325	62,325
Fire Pump						43,200	
SUBTOTAL	2,575	0	0	0	17,000	146,067	62,325
X-FACTOR	1.25	1 + .5	1	1	1	1	0.25
CODE LOAD:	3,219	0	0	0	17,000	146,067	15,581
CONN. LOAD:	228 KVA						
VOLTS:	208 3ph						
TOTAL CALC:	182 KVA						
CALC AMPS:	505 AMPS						

600 W. Front Mixed Use Emergency Distribution Panel 'EDP'							
LOAD:	LIGHTS	RECEPT	HEAT	MISC	EQUIP	MOTORS	LARGEST MOTOR
*Life Safety Loads	2,575	0	0	0	17,000	40,542	
Elevator 1						62,325	43,200
SUBTOTAL	2,575	0	0	0	17,000	102,867	43,200
X-FACTOR	1.25	1 + .5	1	1	1	1	0.25
CODE LOAD:	3,219	0	0	0	17,000	102,867	10,800
CONN. LOAD:	166 KVA						
VOLTS:	208 3ph						
TOTAL CALC:	134 KVA						
CALC AMPS:	372 AMPS						

FEEDER SCHEDULE (COPPER)			
NO.	AMPS	CONDUIT	CONDUCTOR
1		* (2) 4"	BY UTILITY CO. & (1) GND
2		* (5) 4"	BY UTILITY CO. & (1) GND
3	1600A	* (4) 4"	ea w / (4) #600Kcmil & (1) #4/O GND
4	800A	* (2) 4"	ea w / (4) #600Kcmil & (1) #1/O GND
5	600A	* (2) 3"	ea w / (4) #350Kcmil & (1) #1 GND
6	400A	3 1/2"	(4) #500Kcmil & (1) #3 GND
7	250A	2 1/2"	(4) #250Kcmil & (1) #4 GND
8	200A	2"	(4) #3/O & (1) #6 GND
9	150A	2"	(4) #1/O & (1) #6 GND
10	125A	1 1/2"	(4) #1 & (1) #6 GND
11	100A	1 1/2"	(4) #1 & (1) #8 GND
12	60A	1 1/4"	(4) #4 & (1) #10 GND

* PARALLEL FEEDER



1 ELECTRICAL ONE-LINE DIAGRAM
E1.11 208/120V, 3ph, 4w

ONE-LINE GENERAL NOTES:

- COORDINATE ALL WORK ASSOCIATED WITH ELECTRIC SERVICE WITH LOCAL UTILITY. PROVIDE ALL CONDUIT, GROUNDING, TRANSFORMER VAULT/PAD, ETC., IN ACCORDANCE WITH SERVING UTILITY REQUIREMENTS.
- COORDINATE METERING REQUIREMENTS WITH UTILITY.
- FOR LOAD CENTER FEEDER LENGTHS GREATER THAN 145'-0" FROM METER CENTER, INCREASE WIRE SIZE ONE SIZE UP FOR VOLTAGE DROP.
- PER NEC 240.87, THE ELECTRICAL CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR ARC ENERGY REDUCTION DEVICE(S) FOR CIRCUIT BREAKERS 1200A OR GREATER. CONTRACTOR SHALL PROVIDE AN ENERGY-REDUCING ACTIVE FLASH MITIGATION SYSTEM OR OTHER METHOD APPROVED BY THE NEC.

GENERATOR KEYED NOTES:

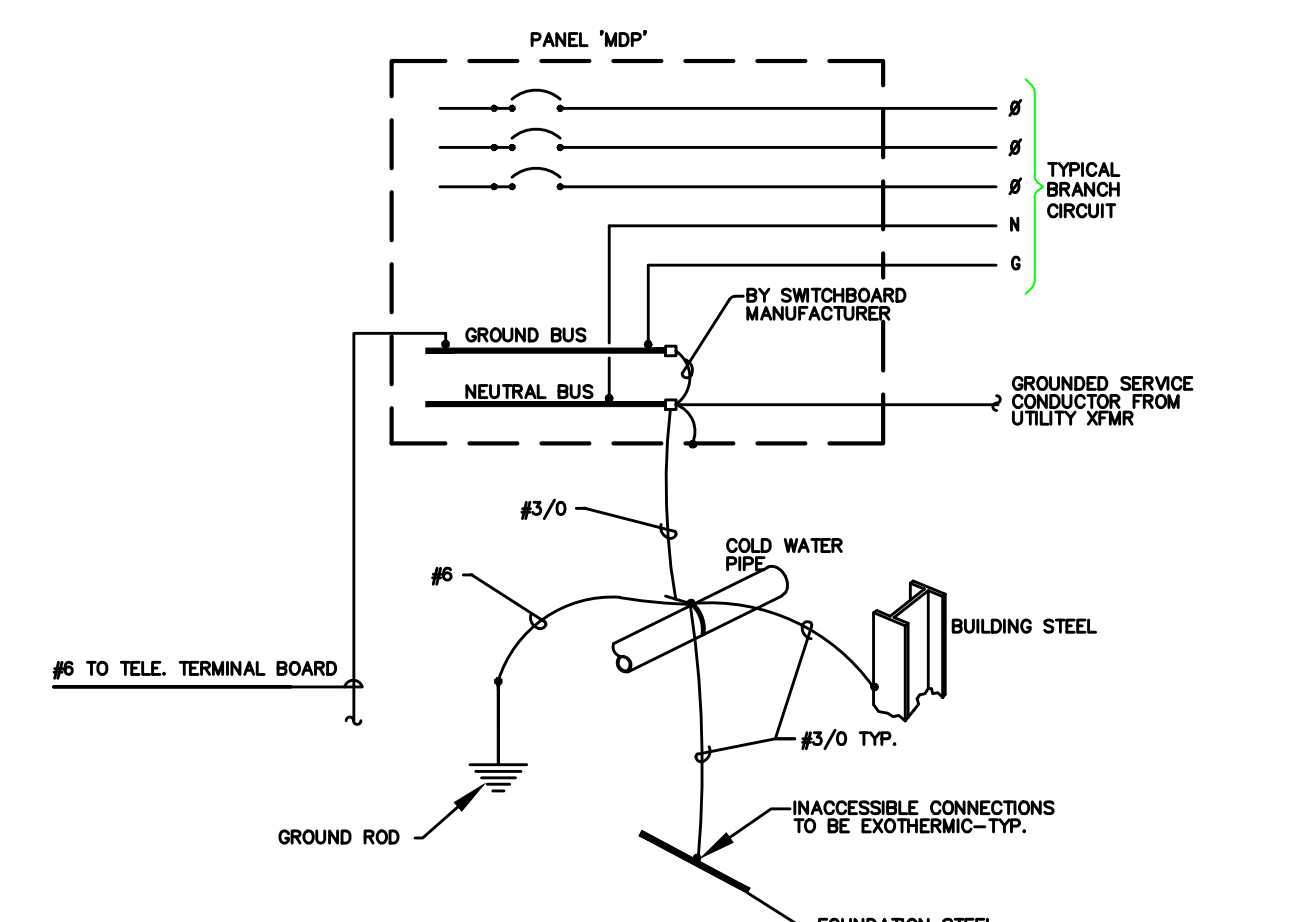
- PROVIDE GROUND FOR SEPARATELY DERIVED SYSTEM PER NEC.
- PROVIDE ELECTRONIC TRIP CIRCUIT BREAKER. EXACT BREAKER TYPE, SETTINGS, ETC. TO BE VERIFIED AND AS DETERMINED BY SELECTIVE COORDINATION STUDY AS PERFORMED BY THE ELECTRICAL DISTRIBUTION EQUIPMENT MANUFACTURER.
- COORDINATE INSTALLATION OF OUTPUT BREAKER WITH GENERATOR MANUFACTURER TO SELECTIVELY COORDINATE WITH POWER STUDY RECOMMENDATIONS.
- 'LIFE SAFETY' BRANCH TO MEET ALL REQUIREMENTS OF NEC 700. CONTRACTOR SHALL BE AWARE THAT MPFA HAS ATTEMPTED TO INDICATE EQUIPMENT AND SIZES THAT WILL SELECTIVELY COORDINATE, BUT WILL NOT BE KNOWN UNTIL ELECTRICAL EQUIPMENT MANUFACTURER PERFORMS THE REQUIRED POWER STUDIES AS SPECIFIED IN 26 05 73. CHANGES MAY BE NECESSARY AFTER THE BID.
- GENERATOR SIZED BASED ON CONNECTED LIFE SAFETY PANEL LOADS AND (1) ELEVATOR WITH A MOTOR STARTING RATE OF 225 AMPS. PER THE GENERATOR PROVIDER, THE AUTOMATIC TRANSFER SWITCH SHALL FUNCTION IN TWO STEPS TO REDUCE STARTING INRUSH. CONSULT GENERATOR VENDOR FOR ADDITIONAL INFORMATION.
- AVAILABLE FAULT CURRENT SHALL BE AS PROVIDED BY THE SERVICE.
- PROVIDE PROVISIONS (EMPTY SOCKETS) FOR AN ADDITIONAL (2) 200A METERS FOR POTENTIAL FUTURE USE.
- ELEVATOR TO BE PROVIDED WITH 30 SECOND DELAYED START WHEN TRANSFERRED TO THE EMERGENCY POWER SYSTEM IN THE EVENT OF NORMAL POWER FAILURE. CONSULT MANUFACTURER'S REPRESENTATIVE FOR ADDITIONAL INFORMATION.

MECHANICAL EQUIPMENT SCHEDULE

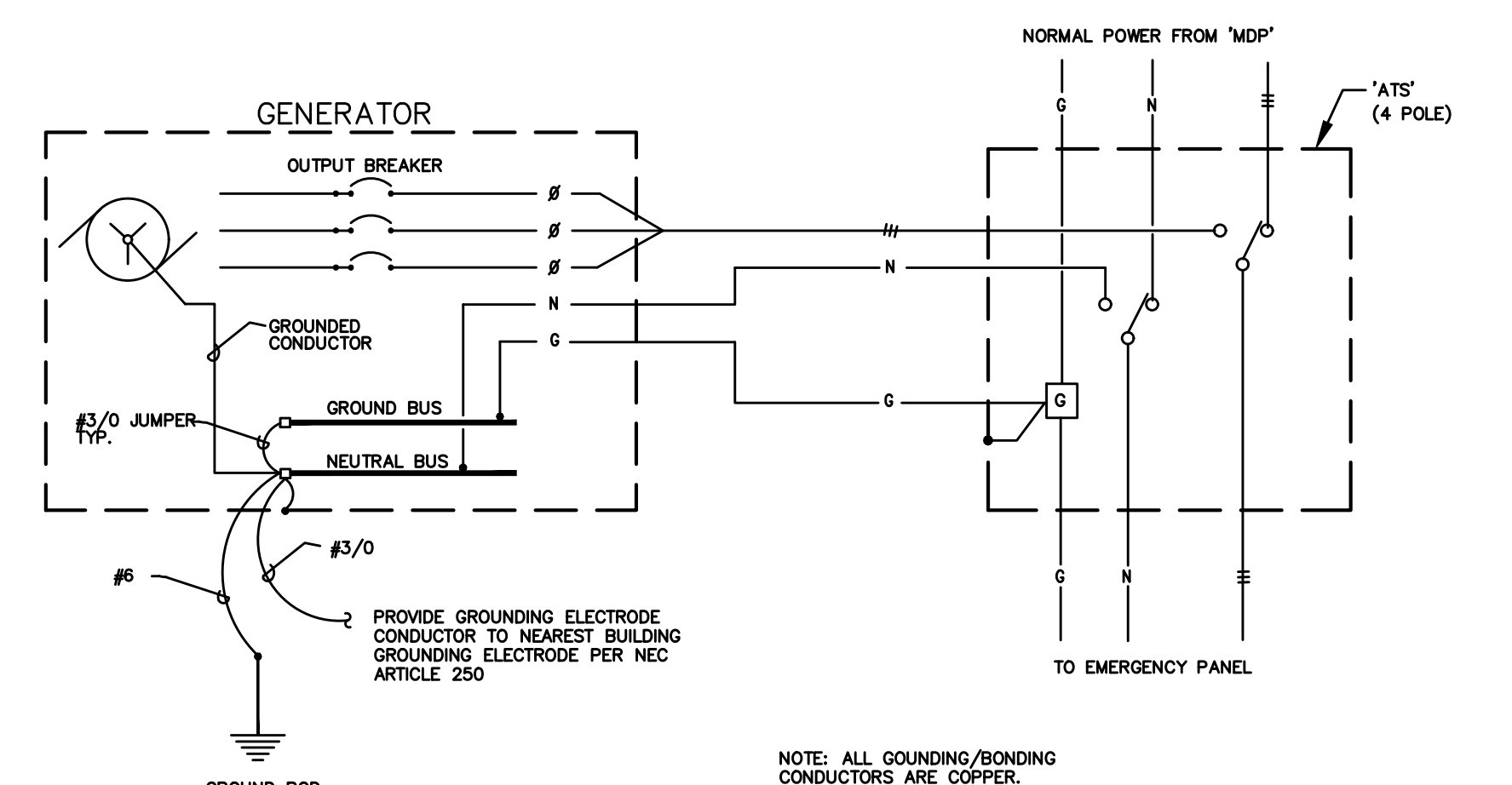
NO.	EQUIPMENT NAME	HP/KW	VOLTS	PH	AMPS	CONDUIT	WIRE	GND	CIRCUIT
BP-1	BOOSTER PUMP NO.1	7.5 HP	208	3		3/4"	#6	#10	M1-6,8,10
DH-1	DUCTED HEATER NO.1	10.0KW	208	3		1/2"	#10	#10	M1-11,13,15
DH-2	DUCTED HEATER NO.2	5.0KW	208	3		1/2"	#12	#12	M2-14,16,18
EF-1	EXHAUST FAN NO.1	38W	120	1		1/2"	#12	#12	SEE UNIT PLANS
EF-2.1	EXHAUST FAN NO.2.1	1 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-2.2	EXHAUST FAN NO.2.2	1/2 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-2.3	EXHAUST FAN NO.2.3	1/4 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-2.4	EXHAUST FAN NO.2.4	1 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-3.1	EXHAUST FAN NO.3.1	1/6 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-3.2	EXHAUST FAN NO.3.2	1/10 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-3.3	EXHAUST FAN NO.3.3	1/10 HP	120	1		1/2"	#12	#12	SEE SHEET E3.09
EF-4	EXHAUST FAN NO.4	1/2 HP	120	1		1/2"	#12	#12	M1-2
EF-5	EXHAUST FAN NO.5	38W	120	1		1/2"	#12	#12	M1-14
EF-6	EXHAUST FAN NO.6	47.3W	120	1		1/2"	#12	#12	SEE SHEET E3.08
EH-1	ELECTRIC WALL HEATER NO.1	2.0KW	208	1		1/2"	#12	#12	SEE UNIT PLANS & E3.01
EH-2	ELECTRIC WALL HEATER NO.2	750W	120	1		1/2"	#12	#12	M1-12
EH-3	ELECTRIC WALL HEATER NO.3	5.0KW	208	1		1/2"	#12	#12	SEE SHEET E3.01
FC-1	SPLIT SYST FAN COIL NO.1 (INDOOR)		208	1	3.4 MCA	1/2"	#12	#12	M1-1,3
HP-1	SPLIT SYST HEAT PUMP NO.1 (OUTDOOR)		208	1	29.1 MCA	3/4"	#8	#10	M2-2,4
FC-2	SPLIT SYST FAN COIL NO.2 (INDOOR)		208	1	0.5 MCA	1/2"	#12	#12	M1-5,7
HP-2	SPLIT SYST HEAT PUMP NO.2 (OUTDOOR)		208	1	16.5 MCA	1/2"	#10	#10	M2-6,8
FC-3	SPLIT SYST FAN COIL NO.3 (INDOOR)		208	1	0.5 MCA	1/2"	#12	#12	M2-7,9
HP-3	SPLIT SYST HEAT PUMP NO.3 (OUTDOOR)		208	1	16.5 MCA	1/2"	#10	#10	M2-10,12
PTHP-1	PACKAGED HEAT PUMP NO.1		208	1	28.2 MCA	1/2"	#10	#10	SEE UNIT PLANS
PTHP-2	PACKAGED HEAT PUMP NO.2		208	1	28.2 MCA	1/2"	#10	#10	SEE UNIT PLANS
RTU-1	ROOFTOP UNIT NO.1		208	3	37.0 MCA	1"	#6	#10	M2-1,3,5
CP-1	CIRCULATION PUMP NO.1	1/4 HP	120	1		1/2"	#12	#12	M1-4 (PC)
SP-1	SUMP PUMP NO.1	1/2 HP	120	1		1/2"	#12	#12	E1-10
WH-1	WATER HEATER NO.1 (GAS)	50W	120	1		1/2"	#12	#12	M1-4 (PC)
WH-2	WATER HEATER NO.2 (GAS)	50W	120	1		1/2"	#12	#12	M1-4 (PC)
WH-3	WATER HEATER NO.3 (GAS)	50W	120	1		1/2"	#12	#12	M1-4 (PC)

GENERAL EQUIPMENT NOTES:

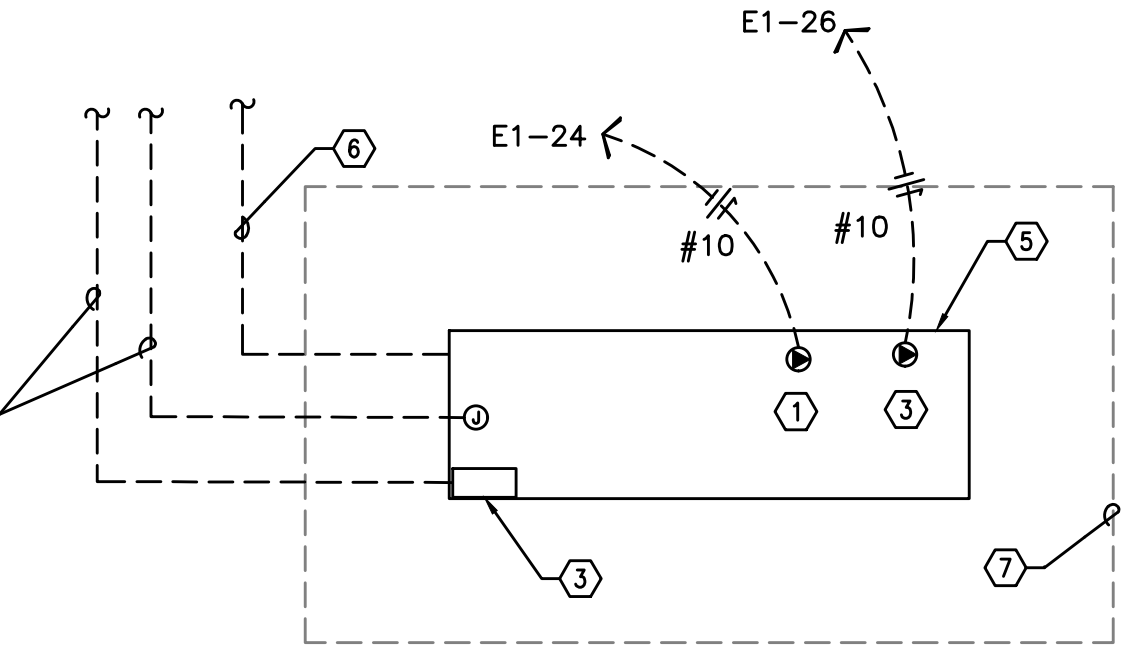
- A. CONTRACTOR/DESIGNER SHALL VERIFY ALL MECHANICAL EQUIPMENT CONNECTION LOAD REQUIREMENTS WITH THE MECHANICAL EQUIPMENT PROVIDER PRIOR TO ROUGH IN.
- B. MECHANICAL EQUIPMENT SIZES SHOWN IN THE MECHANICAL SCHEDULE ABOVE ARE FOR REFERENCE ONLY AND MAY NOT REFLECT THE ACTUAL EQUIPMENT TO BE INSTALLED.
- C. SPLIT SYSTEM FAN COIL & HEAT PUMP UNITS ARE INTERCONNECTED. CONSULT MECHANICAL PLAN SHEETS FOR MORE INFORMATION.



1 GROUNDING/BONDING DIAGRAM
E1.12
480/277V, 3Ø, 4 WIRE



2 GENERATOR - ELECTRICAL GROUNDING/BONDING DETAIL
E1.12
NO SCALE



3 DEISEL GENERATOR DETAIL - TYPICAL
E1.12
N.T.S.

GENERATOR KEYED NOTES:

1. 120V GENERATOR BLOCK HEATER. FED FROM PANEL E1.
2. 120V GENERATOR BATTERY CHARGER. FED FROM PANEL E1.
3. GENERATOR OUTPUT BREAKER AND CONTROL SECTION. FED FROM PANEL E1.
4. POWER AND CONTROL TO TRANSFER SWITCH AND REMOTE ANNUNCIATOR. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
5. DIESEL GENERATOR TANK SHALL BE DOUBLE WALLED AND EQUIPPED WITH OVERFILL PROTECTION (AUTO SHUTOFF), 5 GALLON INFILL SPILL BUCKET WITH DRAIN BACK, 12FT ABOVE GRADE TANK FUME VENTING AND ONSITE PRESSURE TESTING NFPA 30 & 37.
6. GENERATOR DISCONNECT. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
7. WORKING CLEAR SPACE.

panel		mounting SURFACE		location		connected load amps			
E1		3		ELECT. RM		167			
voltage	phase	bus & main		calculated load amps		169			
120/208V	3	250A	MLO						
service									
5	SMOKE DAMPERS	1500	20/1	1	* 2	20/1	1500	SMOKE DAMPERS	5
5	SMOKE DAMPERS	1500	20/1	3	* 4	20/1	1500	SMOKE DAMPERS	5
5	SMOKE DAMPERS	2000	20/1	5	* 6	20/1	1500	SMOKE DAMPERS - FLRS 5 & 6	5
1	LIGHTS - BLDG EXTERIOR	300	20/1	7	* 8	20/1	1500	SMOKE DAMPERS - FLRS 7 & 8	5
1	LIGHTS - STAIRWELLS	704	20/1	9	* 10	20/1	1176	SP-1 (ELEV. PIT)	6
1	LIGHTS - FLR 1	671	20/1	11	* 12	50/3	3864	SPT-1	6
1	LIGHTS - FLR 2 - 8	400	20/1	13	* 14	3864	*		6
5	FACP	500	20/1	15	* 16	3864	*		6
5	DAS	500	20/1	17	* 18	50/3	3864	SPT-2	6
5	GENERATOR ANNUNCIATOR	500	20/1	19	* 20	3864	*		6
1	LIGHTS - ELEVATOR CAB	500	20/1	21	* 22	3864	*		6
6	EF-2.2 & 3.2	1526	20/1	23	* 24	20/1	1500	GENERATOR BLOCK HEATER	5
6	EF-2.2 & 3.2	1526	20/1	25	* 26	20/1	1500	GEN. BATTERY CHARGER	5
6	EF-2.2 & 3.2	1526	20/1	27	* 28	20/1	1500	ELEVATOR CONTROLS (OPT)	5
6	EF-2.2 & 3.2	1526	20/1	29	* 30	20/1		ELEVATOR RELIEF VENT	6
6	EF-2.2 & 3.2	1526	20/1	31	* 32			BLANK	6
6	EF-2.2 & 3.2	1526	20/1	33	* 34			BLANK	6
6	EF-2.2 & 3.2	1526	20/1	35	* 36			BLANK	6
6	EF-2.1 & 3.1	2449	30/1	37	* 38			BLANK	6
6	EF-2.2 & 3.2	1526	20/1	39	* 40			BLANK	6
6	EF-2.2 & 3.2	1526	20/1	41	* 42			BLANK	6
NOTES:								line-line voltage	
Phase A		2046 VA		208					
Phase B		1966 VA							
Phase C		2000 VA							
Total Connected		6017 VA						largest motor (w)	
								0	
load code:								calculated load (w)	
1.	LIGHTS=	700	1204	ph. A	ph. B	ph. C	total	factor	3219
2.	RECEPT=	0	0	0	0	0	0	1.25	0
3.	HEATING=	0	0	0	0	0	0	1.00	0
4.	KITCHEN=	0	0	0	0	0	0	1.00	0
5.	EQUIP.=	6500	5000	5500	5000	17000	1.00		17000
6.	MOTORS=	13228	13482	13832	40542	*	40542	*	40542
7.	MISC=	0	0	0	0	0	1.00		0
(* 125% of the largest motor + 100% of the balance)								TOTAL =	
								60761	

panel		mounting SURFACE		location		connected load amps			
M1		3		ELECT. RM		261			
voltage	phase	bus & main		calculated load amps		261			
120/208V	3	400A	MLO						
service									
6	FC-1	354	20/1	1	* 2	20/1	50	EF-4	6
6	* FC-1	354	* 3	* 4	* 20/1	1500	MH-1, MH-2, MH-3 (GAS) & CP-1	3	6
6	FC-2	1768	20/1	5	* 6	30/3	1967	BP-1 (7.5HP)	6
6	* FC-2	1768	* 7	* 8	* 1967	*			6
3	DH-1 (STAIR 2)	1500	20/1	9	* 10	1967	*		6
3	DH-1 (10KW)	3334	30/3	11	* 12	20/1	750	DH-2	3
3	* DH-1	3334	* 13	* 14	30/1	266	EF-5 (3/2) TRASH SHUTES	6	6
3	* DH-1	3334	* 15	* 16	30/3	3100	TRASH COMPACTOR	6	6
5	IRRIGATION	500	20/1	17	* 18	2100	*		6
3	DH-1 (STAIR 1)	1500	20/1	19	* 20	2100	*		6
3	DH-3 (BIKE ROOM)	2500	30/2	21	* 22	150/3	13677	PANEL M2	7
3	* DH-3	2500	* 23	* 24	14955	*			7
SPARE		0	20/1	25	* 26	12635	*		7
SPARE		0	20/1	27	* 28	BLANK			
SPARE		0	20/1	29	* 30	BLANK			
3	DH-3 (TEMP)	2500	30/2	31	* 32	BLANK			
3	* DH-3	2500	* 33	* 34	BLANK				
3	DH-3 (TEMP)	2500	30/2	35	* 36	BLANK			
3	* DH-3	2500	* 37	* 38	BLANK				
3	DH-3 (TEMP)	2500	30/2	39	* 40	BLANK			
3	* DH-3	2500	* 41	* 42	BLANK				
NOTES:								line-line voltage	
Phase A		2691 VA		208					
Phase B		3192 VA							
Phase C		3287 VA							
Total Connected		93780 VA						largest motor (w)	
								0	
load code:								calculated load (w)	
1.	LIGHTS=	0	0	0	0	0	1.25		0
2.	RECEPT=	0	0	0	0	0	1.00	0.5	0
3.	HEATING=	9834	13834	11584	34252	1.00			35252
4.	KITCHEN=	0	0	0	0	1.00			0
5.	EQUIP.=	0	0	500	500	1.00			500
6.	MOTORS=	6505	4421	5835	16761	*			16761
7.	MISC=	12635	13677	14955	41267	1.00			41267
(* 125% of the largest motor + 100% of the balance)								TOTAL =	
								93780	

panel		mounting SURFACE		location		connected load amps			
H1		3		ELECT. RM		74			
voltage	phase	bus & main		calculated load amps		66			
120/208V	3	250A	MLO						
service									
5	AUTO DOORS	1500	20/1	1	* 2	20/1	500	ELEVATOR PIT LVS & PWR	1
1	LIGHTS - FLR 1	454	20/1	3	* 4	20/1	720	RECEPT - FLR 1	2
1	LIGHTS - FLR 1	329	20/1	5	* 6	20/1	1500	RECEPT - FLR 1 (DOGGE DRYER)	2
5	ENTRY ACCESS	1500	20/1	7	* 8	20/1	1260	RECEPT - FLR 1	2
1	LIGHTS - FLR 1	1000	20/1	9	* 10	20/1	1080	RECEPT - FLR 1	2
5	ICE BEVERAGE TROBE	1500	20/1	11	* 12	20/1	1080	RECEPT - FLR 1	2
SPARE		0	20/1	13	* 14	20/1	1260	RECEPT - FLR 1	2
5	COFFEE MAKER	1500	20/1	15	* 16	20/1	1500	RECEPT - FLR 1 (PKG SYSTEM)	2
1	LIGHTS - COMMUNITY	168	20/1	17	* 18	20/1	1500	RECEPT - FLR 1 (PKG SYSTEM)	2
SPARE		0	20/1	19	* 20	20/1	1080	RECEPT - FLRS 2 & 3	2
2	RECEPT - DATA ROOM	1500	20/1	21	* 22	20/1	1080	RECEPT - FLRS 4 & 5	2
5	EXTERIOR BLDG SIGN	1500	20/1	23	* 24	20/1	1080	RECEPT - FLRS 6 & 7	2
5	LOBBY FIREPLACE	500	20/1	25	* 26	20/1	1080	RECEPT - FLR 8	2
2	RECEPT - LEASE SPACE (TEMP)	1080	20/1	27	* 28	20/1	0	SPARE	2
1	LIGHTS - LEASE SPACE (TEMP)	228	20/1	29	* 30	20/1	0	SPARE	2
7	PANEL H2 (FUTURE)	80/3	31	* 32	20/1			BLANK	
7	* H2	33	* 34	20/1	BLANK			BLANK	
7	* H2	35	* 36	20/1	BLANK			BLANK	

600 W FRONT
STREET

BOISE, IDAHO

JOB NO. 18-044.00

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08/08/2019

ADD 01 / PERMIT REV.

10.18.2019

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01	PERMIT REV 1
	PERMIT REV 2

revision:	date:
1	REV 01
2	REV 02

title:
ELECTRICAL
PANEL SCHEDULES

sheet:
E1.13

UNIT TYPE	QTY PER FLOOR								TOTAL	AREA (SF)	LHG/RECEPT (3VA / SF)	SM APPL (1500VA X 2)	LAUNDRY (1500VA)	COOKING (CONNECTED)	MICROWAVE (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER HEATER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	MOTORS (CONNECTED)	LARGEST OF AC/HEATING (CONNECTED)
	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 6	Lv 7	Lv 8													
Studio		6	5	4	4	4	4	3	30	425	1275	3000	1500	8500	1500	1200	3500	0	900	0	2500
1bed/1bath		3	3	4	4	4	4	4	26	600	1800	3000	1500	8500	1500	1200	3500	0	900	0	3500
2bed/2bath		2	3	3	3	3	3	2	19	815	2445	3000	1500	8500	1500	1200	3500	0	900	0	5000
TOTALS:	0	11	11	11	11	11	11	9	75	43835	131505	225000	112500	637500	112500	90000	262500	0	67500	0	261000

VOLTS: 208 3ph
TOTAL CONNECTED: 1900 KVA
DEMAND FACTOR: 0.23 Based on Total Number of Residential Units = 62 or more (See N.E.C. Article: 220.84)
TOTAL CALCULATED: 437 KVA
CALCULATED AMPS: 1213 AMPS

NOTE:

DWELLING UNIT LOAD CALCULATION

Project: 600 W. Front Mixed Use

Unit Type: Studio

Area: 425 square feet (average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,275 VA
Small Appliance load (2 ckt at 1500VA each)	3,000 VA
Laundry Load (1 ckt at 1500VA)	1,500 VA
Electric Range	8,500 VA
Other Cooking Appliance Load (Microwave Oven)	1,500 VA
Dishwasher Load	1,200 VA
Electric Dryer Load	3,500 VA
Electric Water Heater Load	0 VA
Disposal load	1,200 VA
Other motor loads	0 VA
Total "General Loads"	21,875 VA
First 10 kVA of "general loads" at 100%	10,000 VA
Remainder of "general loads" at 40%	4,670 VA
Net "general load"	14,670 VA

Largest of:

2,500 VA of electric space heating (less than 4) at 65%	1,625 VA
VA of electric space heating (4 or more) at 40%	0 VA
VA of air conditioning/cooling/heat pumps at 100%	0 VA

TOTAL LOAD: 16,295 VA

For 120/208-volt, 4-wire, three-phase service or feeder, 16,295 VA / 208 volts = 78 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

MFA CIRCUIT DIRECTORY 23-Apr-19

Loadcenter Name	mounting	location
LC-STUDIO (TYPICAL)	RECESSED	
service	phase	bus & main
	208/120	100A MLO (SCCR: 10k)
	1	
LIGHTS-KITCHEN/LIVING	20/1(A) 1	2 20/1(A) APPLIANCE CIRCUIT
LVS - BATH	20/1 3	4 20/1(A) APPLIANCE CIRCUIT
RECEPT - BATH	20/1(A) 5	8 20/1 REFRIGERATOR
RECEPT - BATH	20/1 7	8 20/1 MICRO/HOOD
RECEPT - LIVING	20/1(A) 9	10 50/2 RANGE
RECEPT - LIVING	20/1(A) 11	12
WATER METER	20/1 13	14 20/1 DISHWASHER (WHERE USED)
SMART PANEL	20/1 15	16 20/1 DISPOSAL
WASHER	20/1(G) 17	18 20/2 HEAT
DRYER	40/2 19	20
DRYER BOOSTER (OPT)	20/1 23	24 20/2 HEAT
SPARE	20/1 25	26 20/1 SPARE
BLANK	27	28 BLANK
BLANK	29	30 BLANK

NOTES:

- (A) DENOTES: ARC-FAULT INTERRUPTER CIRCUIT BREAKER. INSTALL PER NEC 210.12
- LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
- BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
- (G) DENOTES GFCI RATED BREAKER.

DWELLING UNIT LOAD CALCULATION

Project: 600 W. Front Mixed Use

Unit Type: 1bed/1bath

Area: 600 square feet (average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,800 VA
Small Appliance load (2 ckt at 1500VA each)	3,000 VA
Laundry Load (1 ckt at 1500VA)	1,500 VA
Electric Range	8,500 VA
Other Cooking Appliance Load (Microwave Oven)	1,500 VA
Dishwasher Load	1,200 VA
Electric Dryer Load	3,500 VA
Electric Water Heater Load	0 VA
Disposal load	1,200 VA
Other motor loads	0 VA
Total "General Loads"	22,300 VA
First 10 kVA of "general loads" at 100%	10,000 VA
Remainder of "general loads" at 40%	4,880 VA
Net "general load"	14,880 VA

Largest of:

3,500 VA of electric space heating (less than 4) at 65%	2,275 VA
VA of electric space heating (4 or more) at 40%	0 VA
VA of air conditioning/cooling/heat pumps at 100%	0 VA

TOTAL LOAD: 17,155 VA

For 120/208-volt, 4-wire, three-phase service or feeder, 17,155 VA / 208 volts = 82 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

MFA CIRCUIT DIRECTORY 23-Apr-19

Loadcenter Name	mounting	location
LC-1B67/BA (TYPICAL)	RECESSED	
service	phase	bus & main
	208/120	100A MLO (SCCR: 10k)
	1	
LIGHTS-KITCHEN/LIVING	20/1(A) 1	2 20/1(A) APPLIANCE CIRCUIT
LVS - BATH	20/1 3	4 20/1(A) APPLIANCE CIRCUIT
LVS - BEDROOMS	20/1(A) 5	6 20/1 REFRIGERATOR
RECEPT - BATH	20/1 7	8 20/1 MICRO/HOOD
RECEPT - LIVING	20/1(A) 9	10 50/2 RANGE
RECEPT - LIVING	20/1(A) 11	12
RECEPT - BEDROOM	20/1(A) 13	14 20/1 DISHWASHER (WHERE USED)
WATER METER	20/1 15	16 20/1 DISPOSAL
WASHER	20/1(G) 17	18 20/2 HEAT
DRYER	40/2 19	20
DRYER BOOSTER (OPT)	20/1 23	24 20/2 HEAT
SMART PANEL	20/1 25	26 20/1 SPARE
BLANK	27	28 BLANK
BLANK	29	30 BLANK

NOTES:

- (A) DENOTES: ARC-FAULT INTERRUPTER CIRCUIT BREAKER. INSTALL PER NEC 210.12
- LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
- BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
- (G) DENOTES GFCI RATED BREAKER.

DWELLING UNIT LOAD CALCULATION

Project: 600 W. Front Mixed Use

Unit Type: 2bed/2bath

Area: 815 square feet (average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,445 VA
Small Appliance load (2 ckt at 1500VA each)	3,000 VA
Laundry Load (1 ckt at 1500VA)	1,500 VA
Electric Range	8,500 VA
Other Cooking Appliance Load (Microwave Oven)	1,500 VA
Dishwasher Load	1,200 VA
Electric Dryer Load	3,500 VA
Electric Water Heater Load	0 VA
Disposal load	1,200 VA
Other motor loads	0 VA
Total "General Loads"	22,845 VA
First 10 kVA of "general loads" at 100%	10,000 VA
Remainder of "general loads" at 40%	5,138 VA
Net "general load"	15,138 VA

Largest of:

5,000 VA of electric space heating (less than 4) at 65%	3,250 VA
VA of electric space heating (4 or more) at 40%	0 VA
VA of air conditioning/cooling/heat pumps at 100%	0 VA

TOTAL LOAD: 18,388 VA

For 120/208-volt, 4-wire, three-phase service or feeder, 18,388 VA / 208 volts = 88 Amps

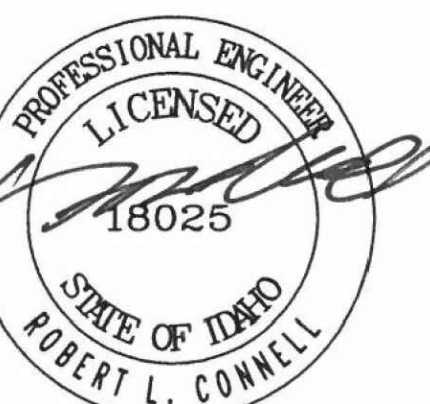
Therefore, this dwelling unit shall be permitted to be served by a 125 amp service.

MFA CIRCUIT DIRECTORY 23-Apr-19

Loadcenter Name	mounting	location
LC-2B67/BA (TYPICAL)	RECESSED	
service	phase	bus & main
	208/120	100A MLO (SCCR: 10k)
	1	
LIGHTS-KITCHEN/LIVING	20/1(A) 1	2 20/1(A) APPLIANCE CIRCUIT
LVS - BATH	20/1 3	4 20/1(A) APPLIANCE CIRCUIT
LVS - BEDROOMS	20/1(A) 5	6 20/1 REFRIGERATOR
RECEPT - BATH	20/1 7	8 20/1 MICRO/HOOD
RECEPT - LIVING	20/1(A) 9	10 50/2 RANGE
RECEPT - LIVING	20/1(A) 11	12
RECEPT - BEDROOM	20/1(A) 13	14 20/1 DISHWASHER
RECEPT - BEDROOM	20/1(A) 15	16 20/1 DISPOSAL
WASHER	20/1(G) 17	18 20/2 HEAT
DRYER	40/2 19	20
DRYER BOOSTER (OPT)	20/1 23	24 20/2 HEAT
WATER METER	20/1 25	26 20/1 SPARE
SMART PANEL	20/1 27	28 20/1 SPARE
BLANK	29	30 BLANK

NOTES:

- (A) DENOTES: ARC-FAULT INTERRUPTER CIRCUIT BREAKER. INSTALL PER NEC 210.12
- LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
- BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
- (G) DENOTES GFCI RATED BREAKER.



08/08/2019

ADD 01 / PERMIT REV.

10.18.2019

Issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.18.2019
ADD 01	PERMIT REV 2

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

LIGHTING FIXTURE LIST – INTERIOR					
TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'A1' 'A1E'	LED 3500K 2400LM/80CRI	METALUX (OR APPROVED EQUAL)	4SNLED L05 23SL SERIES	TYPE :4" GEN. PURPOSE STRIP MOUNTING :SURFACE OR CHAIN HUNG HOUSING :STEEL LENS/REFL :SEM FROST LENS VOLTAGE :120V BALLAST :LED DRIVER	TYPE 'A1E' SIMILAR TO TYPE 'A1' EXCEPT WITH EMERGENCY BATTERY BACK-UP EQUIP. RMS, STORAGE, TRASH RM
'A2' 'A2E'	LED 3500K 3800 LM/80CRI	DAY-BRITE (OR APPROVED EQUAL)	V3MEZ SERIES	TYPE :4" ENCLOSED INDUSTRIAL MOUNTING :SURFACE HOUSING :FIBERGLASS LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	TYPE 'A2E' SIMILAR TO TYPE 'A2' EXCEPT WITH EMERGENCY BATTERY BACK-UP ELEVATOR PIT
'A3'	LED 3500K 4150LM/80CRI	LITHONIA (OR APPROVED EQUAL)	CDS SERIES	TYPE :4" INDUSTRIAL STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	TYPE 'A3E' SIMILAR TO TYPE 'A3' EXCEPT WITH EMERGENCY BATTERY BACK-UP LEASE SPACE
'B1' (1)	LED 3000K 2480LM	PRUDENTIAL LIGHTING (OR APPROVED EQUAL)	RZLED35504 SERIES	TYPE :4" LINEAR STRIP MOUNTING :WALL MOUNT (+8"-0") HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	PROVIDE WITH INTEGRAL OCCUPANCY SENSOR TO DIM FIXTURES BY 50% DURING PERIODS OF LOW ACTIVITY. STARWELLS
'B2'	LED 3000K 2480LM	PRUDENTIAL LIGHTING (OR APPROVED EQUAL)	RZLED35504 SERIES	TYPE :4" LINEAR STRIP MOUNTING :SUSPENDED (CABLE HUNG) HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	PROVIDE WITH INTEGRAL OCCUPANCY SENSOR TO DIM FIXTURES BY 50% DURING PERIODS OF LOW ACTIVITY. SEE ARCHITECT FOR MOUNTING HEIGHT. EQUIPMENT, BIKE STORAGE
'C1' (1)	LED 3000K/80CRI 650LM	LIGHTOLIER (OR APPROVED EQUAL)	L4R06830VA SERIES L4R TRIM	TYPE :4" DIA. DOWNLIGHT MOUNTING :RECESSED (IC RATED) HOUSING :STEEL LENS/REFL :WHITE BAFFLE VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	CORRIDORS, RESTROOMS
'C2' (E1) (4)	LED 3000K/80CRI 500LM/FT	JESCO (OR APPROVED EQUAL)	DL-AC-FLEX SERIES	TYPE :LED TAPE COVE LIGHT MOUNTING :SURFACE/CHANNEL HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	MAIN LOBBY, ELEVATOR LOBBIES
'C3'	LED 3000K/80CRI 650LM	LIGHTOLIER (OR APPROVED EQUAL)	L4R06830VA SERIES L4R TRIM	TYPE :4" DIA. ADJUSTABLE DOWNLIGHT MOUNTING :RECESSED (IC RATED) HOUSING :STEEL LENS/REFL :WHITE BAFFLE VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	CORRIDORS, RESTROOMS
'C4'	LED 3000K 3000LM	LIGHTOLIER (OR APPROVED EQUAL)	C4SDL30 SERIES	TYPE :4" DIA CYLINDER MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT UL LISTED WET LOCATION DOG WASH
'D1'	LED 3000K 2000LM	SCHOOLHOUSE LIGHTING (OR APPROVED EQUAL)	ISAAC SCONE SERIES	TYPE :VANITY LIGHT MOUNTING :SURFACE (+6" ABOVE MIRROR) HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	PROVIDE WITH LED LAMP. CENTER ABOVE MIRROR. SEE ARCHITECT FOR EXACT PLACEMENT. PUBLIC RESTROOMS
'L1'	LED 3000K 4757LM	EUREKA LIGHTING (OR APPROVED EQUAL)	MOTO SERIES	TYPE :LARGE DECORATIVE PENDANT MOUNTING :CABLE HUNG HOUSING : LENS/REFL : VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	MAIN LOBBY
'L3'	LED 3000K 2360LM	EUREKA LIGHTING (OR APPROVED EQUAL)	STELLA 4272-9 LEDREG SERIES	TYPE :SMALL DECORATIVE PENDANT MOUNTING :SUSPENDED HOUSING : LENS/REFL : VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	VERIFY STEM OR CABLE HUNG MAIN LOBBY
'L4' (6)	LED 1100LM/HEAD 3000K	HALO (OR APPROVED EQUAL)	L812 11 FL SERIES TRACK HEAD TYPE L26 TEX TWO CKT TRACK	TYPE :TRACK LIGHT W/ FOUR HEADS MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :DIFFUSED VOLTAGE :120V BALLAST :LED DRIVER (DIMMING)	CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE INSTALL. FIELD AIM PER ARCHITECT. LOBBY CORRIDORS
'L5'	LED 2700K 685LM	VIBIA LIGHTING (OR APPROVED EQUAL)	PALMA 3724 SERIES	TYPE :DECORATIVE PENDANT MOUNTING :SUSPENDED HOUSING : LENS/REFL : VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	VERIFY MOUNTING HEIGHT LEASE OFFICE
'L6'	LED 2700K 1371LM	VIBIA LIGHTING (OR APPROVED EQUAL)	PALMA 3728 SERIES	TYPE :DECORATIVE PENDANT MOUNTING :SUSPENDED HOUSING : LENS/REFL : VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	VERIFY MOUNTING HEIGHT LEASE OFFICE
'X1'	LED (GREEN LETTERS) (1.5W)	DUAL LITE (OR APPROVED EQUAL)	EVE SERIES	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE VOLTAGE :120V BALLAST :NICKLE CADMIUM BATTERY	
'X2'	LED (GREEN LETTERS) (1.5W)	DUAL LITE (OR APPROVED EQUAL)	EVE SERIES	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :DOUBLE FACE VOLTAGE :120V BALLAST :NICKLE CADMIUM BATTERY	
'X3'	LED (GREEN LETTERS) (1.5W)	DUAL LITE (OR APPROVED EQUAL)	EVE4X SERIES	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE VOLTAGE :120V BALLAST :NICKLE CADMIUM BATTERY	UL LISTED WET LOCATION

LIGHTING FIXTURE LIST – TYPICAL LIVING UNITS					
TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'U1'	LED 3000K 650LM	LIGHTOLIER (OR APPROVED EQUAL)	55R830K7 SERIES	TYPE :5" DIA. DOWNLIGHT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10V DIMMING)	UNIT KITCHEN, HALL, BATH
'U2'	LED 3000K 1144LM	RP LIGHTING (OR APPROVED EQUAL)	EUROPA 1008LED	TYPE :CEILING FAN W/ LIGHT KIT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	CONTRACTOR TO PROVIDE BRACING AT CEILING TO SUPPORT A MINIMUM OF 35 LBS. CONSULT ARCH FOR FIXTURE CONTROL. UNIT BEDROOM
'U3'	LED 3000K 1922LM	LITHONIA (OR APPROVED EQUAL)	FMVCSL24 SERIES FMVCSL36 SERIES	TYPE :24" or 36" VANITY LIGHT MOUNTING :SURFACE (+6" ABOVE MIRROR) HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	REFER TO ARCHITECTURAL INTERIOR TYPICAL UNIT PLANS FOR EXACT SIZE AT EACH LOCATION. UNIT BATHROOM
'U5'	LED 3000K 750LM/80CRI	SUNPARK LIGHTING (OR APPROVED EQUAL)	3-4048 SERIES	TYPE :EXTERIOR SCENE MOUNTING :SURFACE (+7-6" AFF) HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :LED DRIVER	UNIT PATIO
'U6' (4) (5)	LED 3000K/80CRI 500LM/FT	JESCO (OR APPROVED EQUAL)	DL-AC-FLEX SERIES	TYPE :LED TAPE LIGHT MOUNTING :SURFACE/CHANNEL HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	MOUNT TO UNDERSIDE OF DECK RAILING W/ LAMPS DIRECTED DOWNWARD. UL LISTED WET LOCATION UNIT BALCONY HANDRAIL

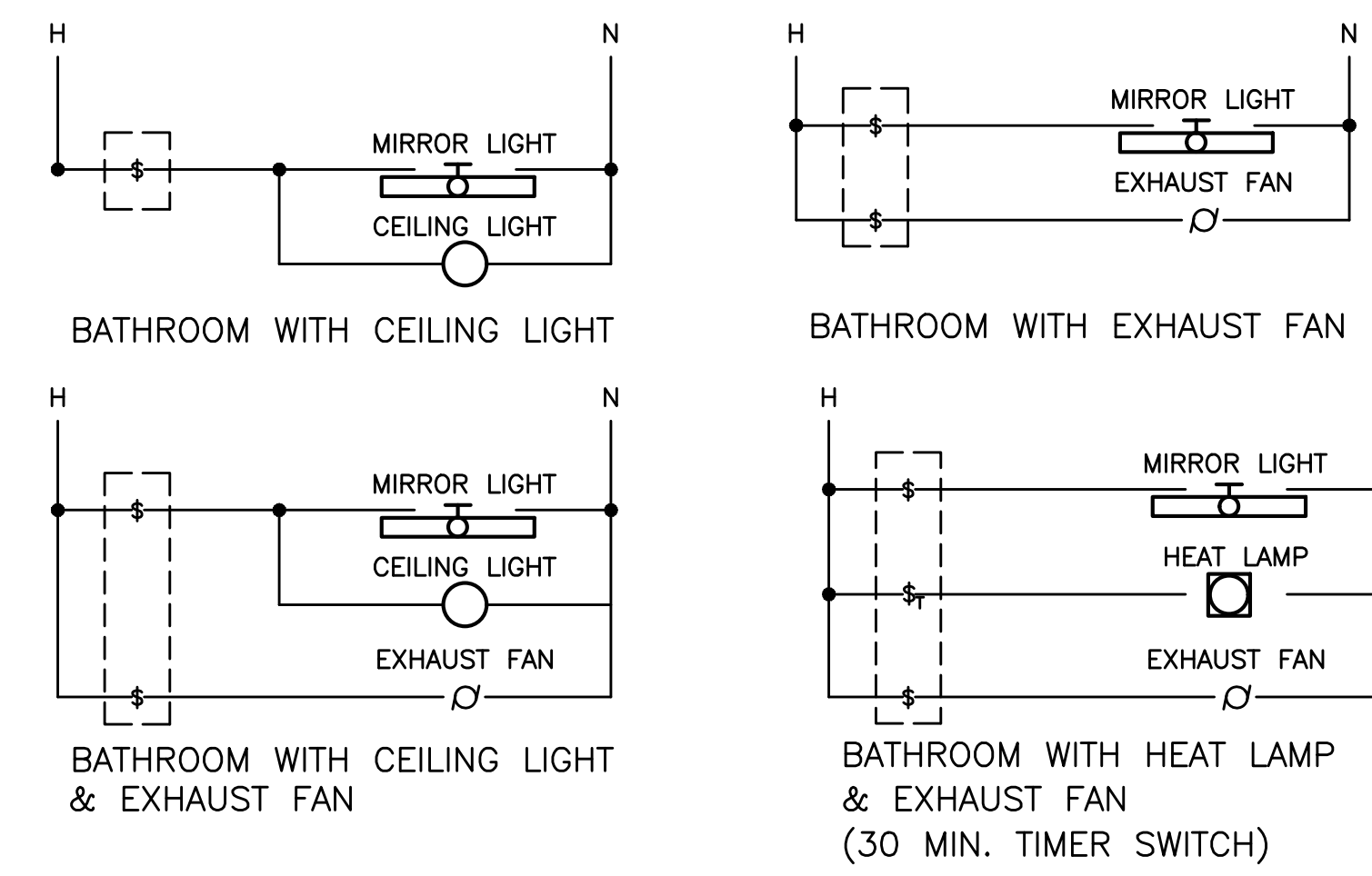
LIGHTING FIXTURE LIST – EXTERIOR					
TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'S1' (4)	LED 3500K/80CRI 1000LM/FT	KELVIX (OR APPROVED EQUAL)	VERTEX 1000 SERIES	TYPE :LED TAPE LIGHT MOUNTING :SURFACE/CHANNEL HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :24V BALLAST :LED DRIVER	CONSULT ARCHITECT FOR MOUNTING REQUIREMENTS AND PROVIDE THE APPROPRIATE CHANNEL. UL LISTED WET LOCATION EXTERIOR AWNINGS
'S3'	LED 3000K 750LM/80CRI	SUNPARK LIGHTING (OR APPROVED EQUAL)	3-4048 SERIES	TYPE :EXTERIOR SCENE MOUNTING :SURFACE (+7-6" AFF) HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :LED DRIVER	ROOF TERRACE
'S5'	LED 3000K (WHITE)	WAC LIGHTING (OR APPROVED EQUAL)	WL-LED300 SERIES	TYPE :STEP LIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL : VOLTAGE :120V BALLAST :LED DRIVER	UL LISTED WET LOCATION ROOF TERRACE

GENERAL NOTES:

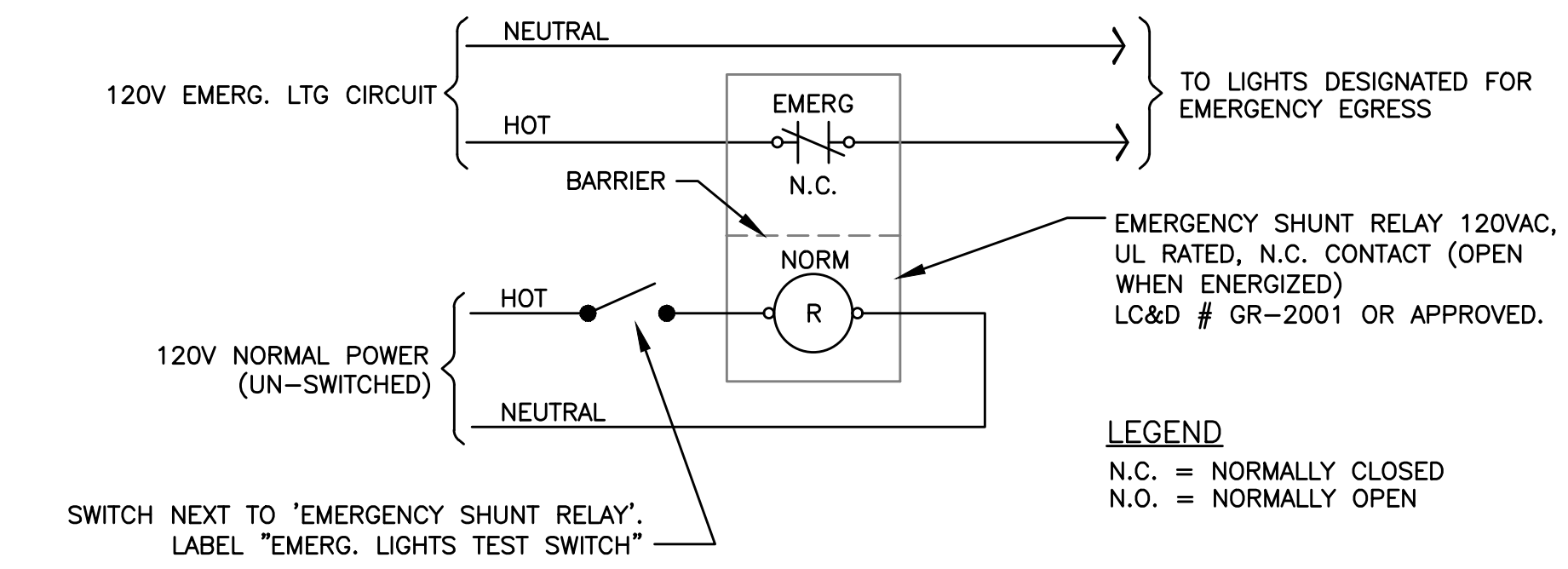
- ALL LIGHT FIXTURES SHALL HAVE ENERGY EFFICIENT LAMPING AND BALLASTS.
- LIGHT FIXTURES FOR LIVING UNITS PREFERRED TO BE "ENERGY STAR" RATED.
- VERIFY ALL FIXTURE FINISHES WITH ARCHITECT PRIOR TO BID.
- VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH IN.
- VERIFY ALL FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH IN.
- ALL INTERIOR LIGHTING SHALL BE 3000 KELVIN UNLESS OTHERWISE NOTED. THE EXCEPTION TO THIS WILL BE THE LIGHT FIXTURES IN THE APARTMENT UNITS, FIXTURES IN MAINTENANCE AREAS AND TEMPORARY LIGHTING.
- ALL PRODUCT SUBSTITUTIONS AND VALUE ENGINEERING SHALL BE SUBMITTED DURING BID PHASE, SHALL MEET DESIGN INTENT AND IS SUBJECT TO OWNER APPROVAL.
- CONTRACTOR SHALL CONSULT MANUFACTURER INSTALLATION INSTRUCTIONS FOR ALL FIXTURES AND DEVICES AND INSTALL AS INSTRUCTED. THIS INCLUDES ALL ELECTRICAL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION. WORK SHALL BE PERFORMED SUCH THAT MANUFACTURER WARRANTY IS NOT VOIDED.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED HARDWARE AND ACCESSORIES FOR A COMPLETE INSTALL OF EACH LIGHT FIXTURE TYPE. THIS INCLUDES ANY TRACK LIGHTING, LOW VOLTAGE LIGHTING, IC RATED BOXES (IF REQUIRED), ETC.
- ALL LIGHT FIXTURES NOTED AS "EMERGENCY" AND/OR "EGRESS" SHALL BE ON GENERATOR BACK-UP UNLESS OTHERWISE NOTED.

KEYED LIGHTING NOTES:

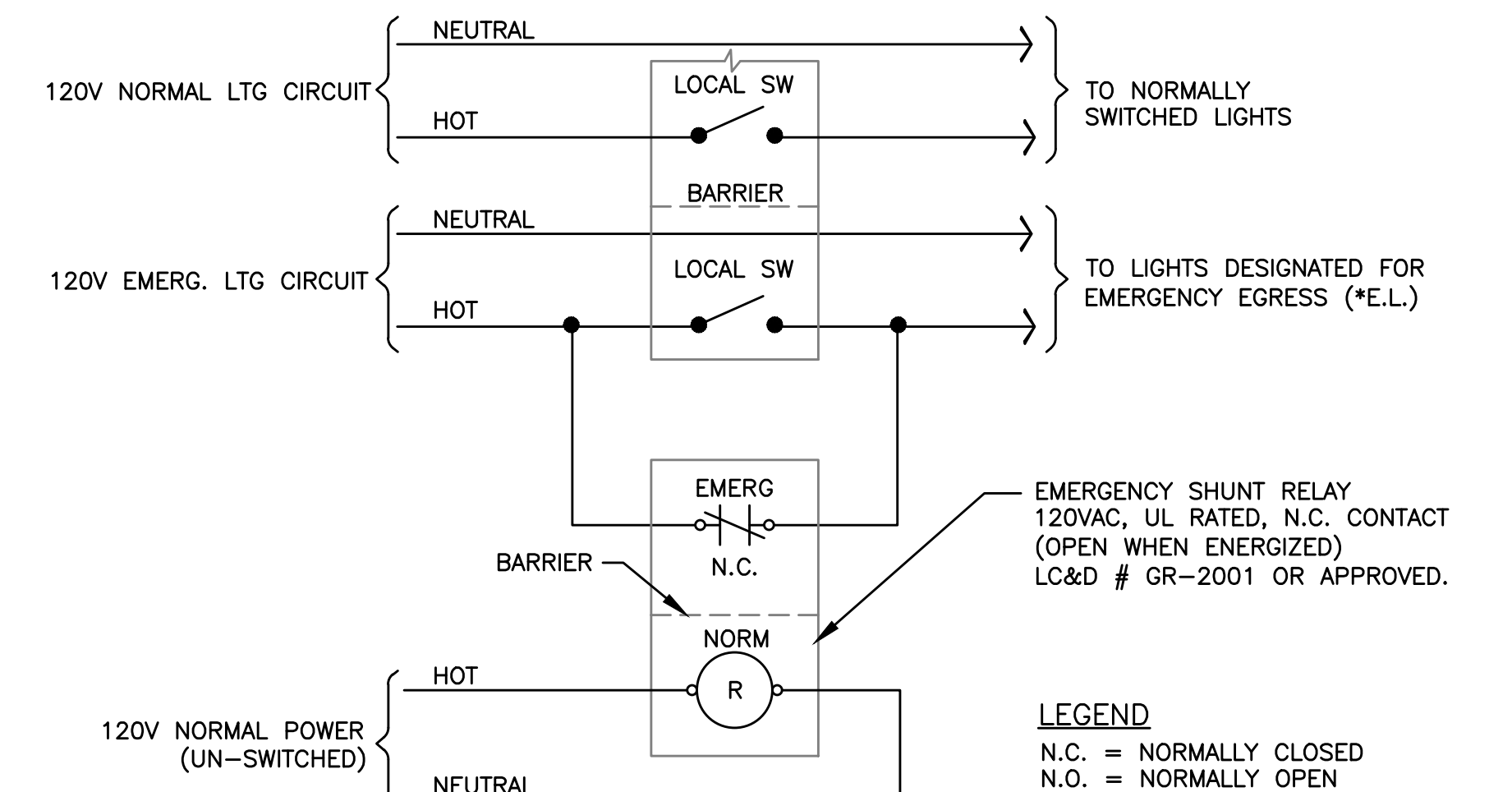
- STAIRWELL AND CORRIDOR FIXTURES TO BE EQUIPPED WITH FACTORY INSTALLED OCCUPANCY SENSORS FOR LIGHT REDUCTION DURING PERIODS OF NO ACTIVITY. IF FACTORY INSTALLED OCCUPANCY SENSORS ARE NOT AVAILABLE, PROVIDE CEILING MOUNTED OCCUPANCY SENSORS AS NEEDED.
- PROVIDE BLOCKING AT CEILING TO SUPPORT 35LB., MINIMUM, FOR CEILING FAN INSTALLATION. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- CONSULT ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR ELEVATIONS FOR EXACT PLACEMENT OF THE FIXTURE PRIOR TO ROUGH IN. TYPICAL FOR ALL LOCATIONS.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE INSTALL. NOTE THAT SOME LED TAPE LIGHTS ARE NOT CUTTABLE AND SHOULD THEREFORE BE ORDERED ACCORDINGLY FOR EACH LENGTH. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LENGTH REQUIRED AT EACH LOCATION.
- FIXTURE(S) INSTALLED AT RESIDENTIAL UNIT BALCONIES SHALL BE TIED INTO THAT UNIT'S LIGHTING CIRCUIT AND CONTROLLED VIA PHOTOCELL FOR DUSK-TILL-DAWN OPERATION UNLESS OTHERWISE DIRECTED BY THE ARCHITECT.
- TRACK LIGHT DIMMING DRIVER SHALL BE COMPATIBLE WITH THE LOW VOLTAGE LIGHTING CONTROLS. CONTROLS LOCATED IN LEASE OFFICE.



1 BATHROOM SWITCHING DIAGRAMS – TYPICAL
E1.21 NO SCALE



2 EMERGENCY EGRESS LIGHTING – UNSWITCHED
E1.21 NO SCALE



3 EMERGENCY EGRESS LIGHTING – SWITCHED
E1.21 NO SCALE

LIGHTING CONTROL DESIGN INTENT:

AREA	DESCRIPTION
BACK OF HOUSE	EGRESS LIGHT FIXTURES TO BE CONSTANT "ON". LIGHT FIXTURES SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSORS, SUCH THAT LIGHTING IS DIMMED BY A MINIMUM OF 50% DURING PERIODS OF INACTIVITY. OCCUPANCY SENSORS SHALL BE SET TO DIM NO LESS THAN 15 MINUTES ONCE THE AREA IS VACANT AND SHALL BE AT 100% OUTPUT IMMEDIATELY UPON OCCUPANT DETECTION.
BUILDING EXTERIOR	ALL EXTERIOR BUILDING LIGHT FIXTURES SHALL BE CONTROLLED VIA ROOF MOUNTED PHOTOCELL FOR DUST-TILL-DAWN OPERATION.
STAIRWELLS	STAIRWELL LIGHTING TO BE CONTINUOUSLY "ON", WITH OCCUPANCY SENSORS (INTEGRAL OR CEILING MOUNT) TO PROVIDE 50% DIMMING DURING PERIODS OF INACTIVITY. OCCUPANCY SENSORS SHALL BE SET TO DIM NO LESS THAN 15 MINUTES ONCE THE AREA IS VACANT AND SHALL BE AT 100% OUTPUT IMMEDIATELY UPON OCCUPANT DETECTION.
CORRIDORS	THE CORRIDOR LIGHTING SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSORS TO PROVIDE 50% LIGHTING REDUCTION DURING PERIODS OF INACTIVITY. OCCUPANCY SENSORS SHALL BE SET TO DIM NO LESS THAN 20 MINUTES ONCE THE AREA IS VACANT AND SHALL BE AT 100% OUTPUT IMMEDIATELY UPON OCCUPANT DETECTION. EGRESS LIGHTS SHALL BE CONSTANT "ON".
MAIN LOBBY	DIGITAL LIGHTING CONTROLS FOR THE MAIN LOBBY SHALL BE LOCATED NEAR THE RECEPTION DESK. COORDINATE WITH INTERIOR DESIGNER FOR THE DESIGN INTENT OF THE LOBBY LIGHTING. EGRESS LIGHTING SHALL BE CONSTANT "ON" AND AT 100% OUTPUT IN THE EVENT OF POWER OUTAGE.
OFFICE AREAS, COMMUNITY SPACES & EQUIPMENT ROOMS	PROVIDE LOCAL LIGHTING CONTROLS AS INDICATED ON THE LIGHTING PLANS. EGRESS LIGHTING SHALL BE CONSTANT "ON" AND AT 100% OUTPUT IN THE EVENT OF POWER OUTAGE.

title:

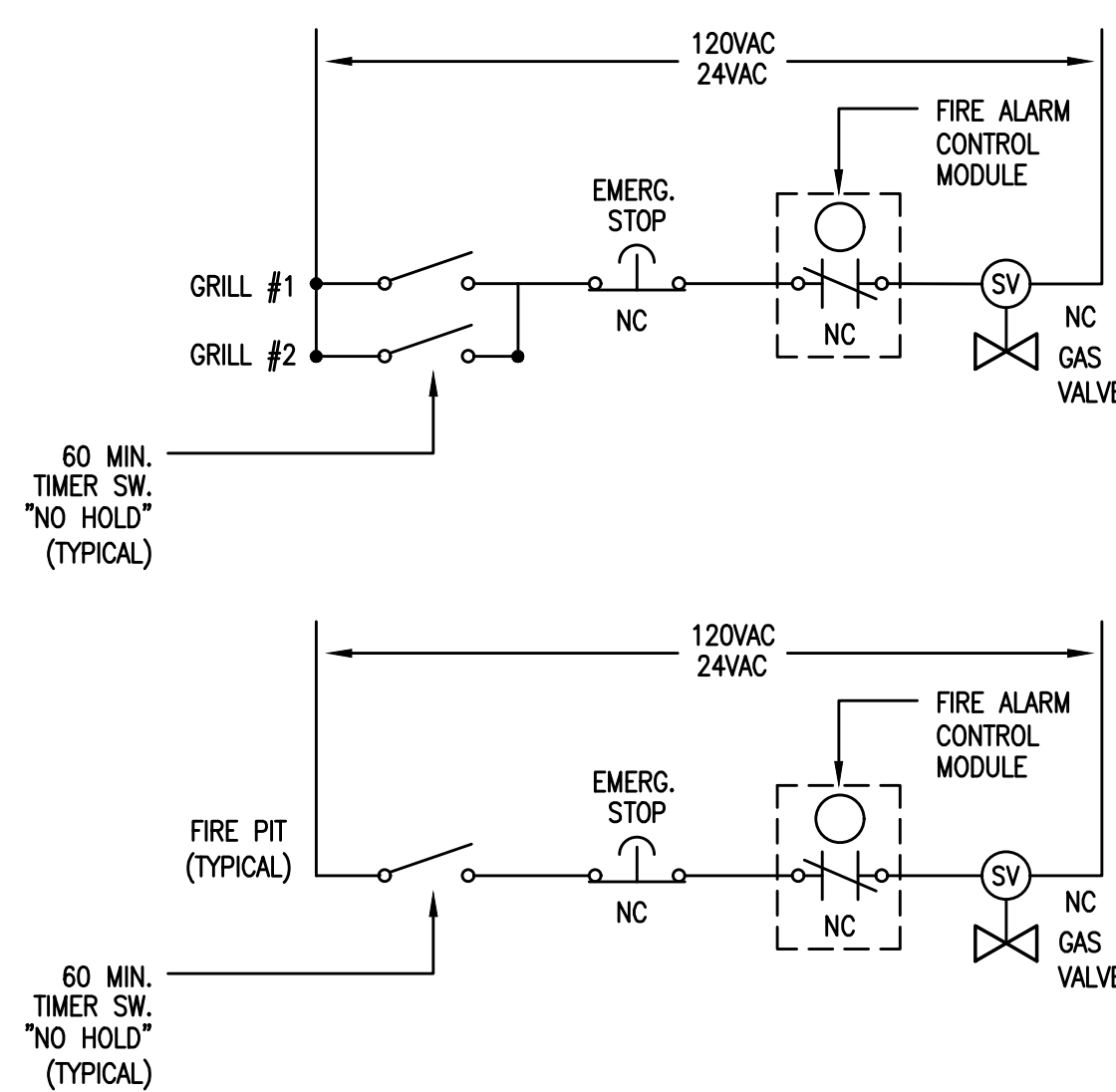
ELECTRICAL DETAILS

sheet:

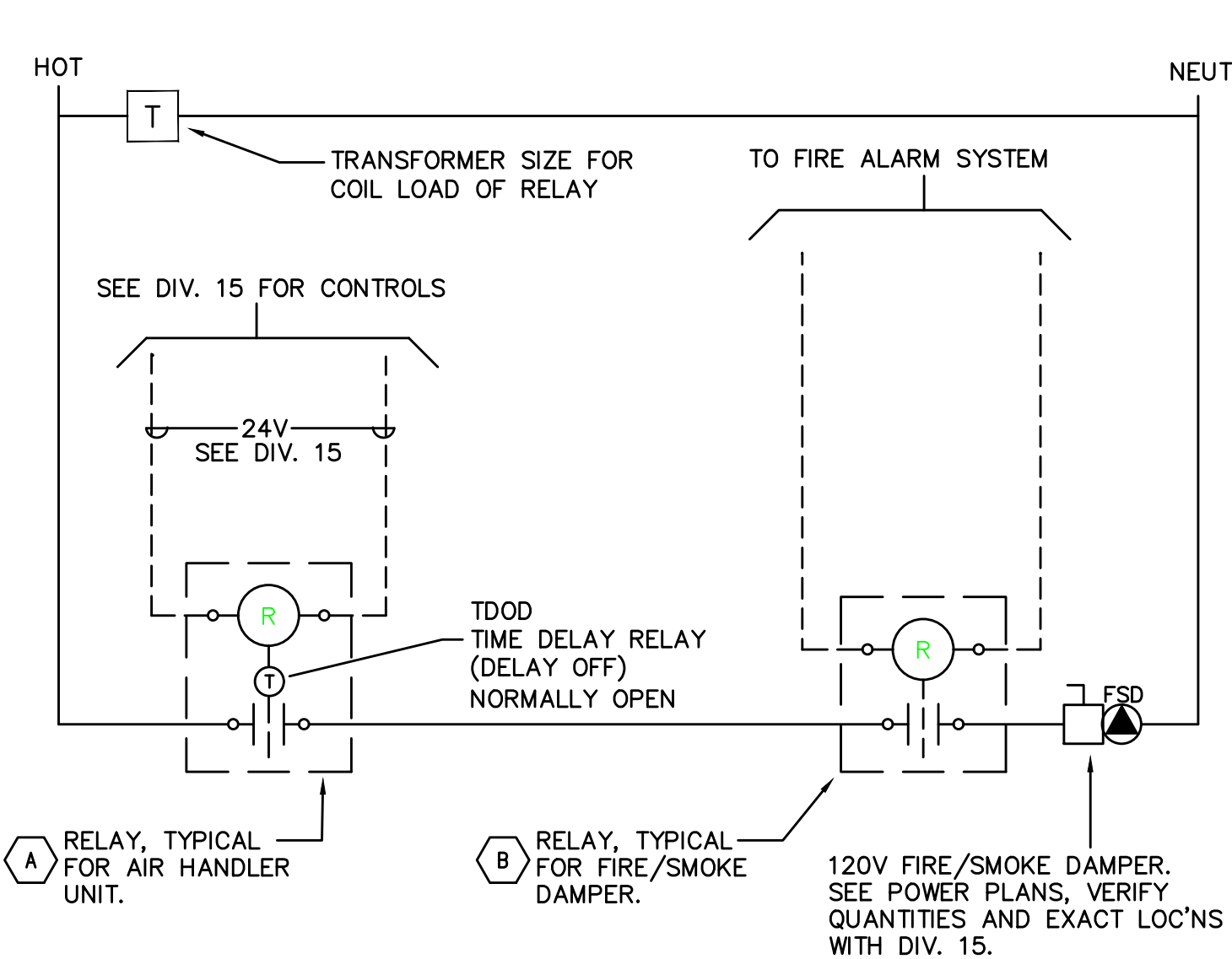
E1.21

Issue:	Date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01	PERMIT REV 1
PERMIT REV 2	10.18.2019

revision:	date:
1	REV 01 10.04.2019
2	REV 02 10.18.2019



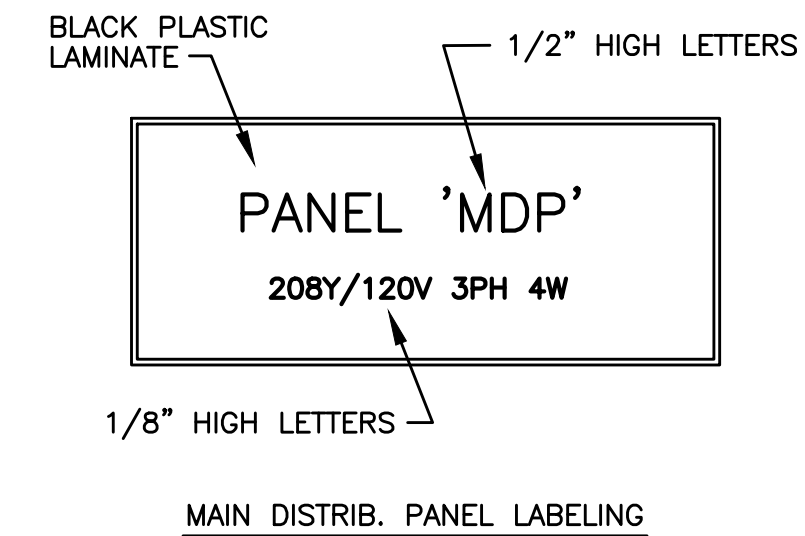
1 ROOFTOP GAS APPLIANCE
EMERGENCY SHUT-OFF DIAGRAM
E1.22 NO SCALE



2 SMOKE/FIRE DAMPER CONTROL DIAGRAM
E1.22 NO SCALE

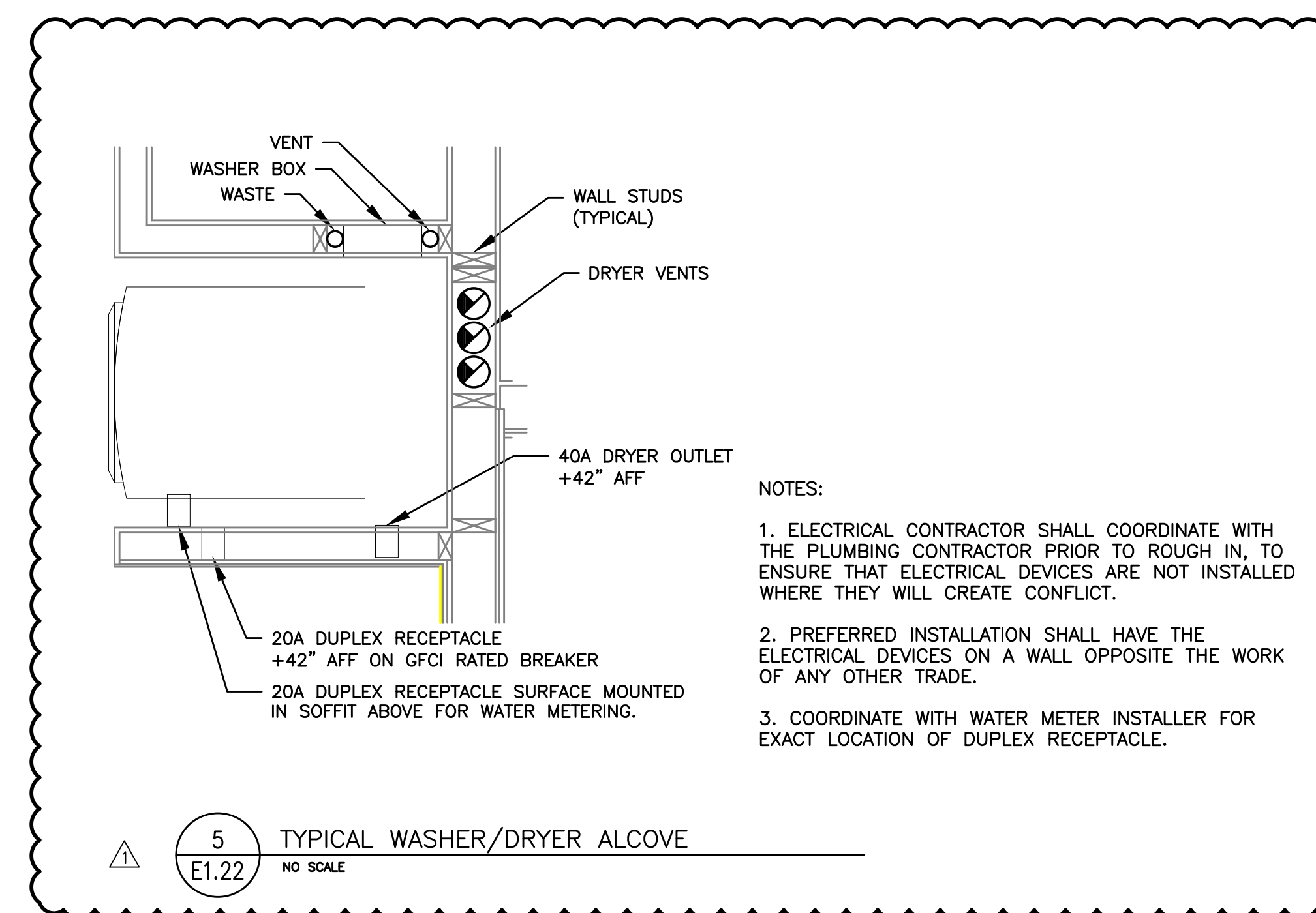
ADDRESSABLE DETECTOR CONTROL

- A RELAY TO BE 'NORMALLY OPEN'. TDOD (TIME DELAY ON DE-ENERGIZE) SET FOR 15 SECONDS. RELAY TO CLOSE UPON SIGNAL FROM HVAC CONTROL SYSTEM (ALLOWS DAMPER TO OPEN); DAMPERS TO CLOSE ON DE-ENERGIZE AFTER 15 SEC. TIME-OUT. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY HVAC CONTROL SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO HVAC CONTROL PANEL.
- B RELAY TO BE 'NORMALLY ENERGIZED'. RELAY TO BE DE-ENERGIZED UPON SIGNAL FROM FIRE ALARM SYSTEM (ALLOWS DAMPERS TO CLOSE). PROGRAM FIRE ALARM SYSTEM FOR 15 SECOND DELAY BETWEEN SMOKE DETECTOR ACTIVATION AND FIRE/SMOKE DAMPER SHUTDOWN. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY FIRE ALARM SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO FIRE/SMOKE DAMPER.

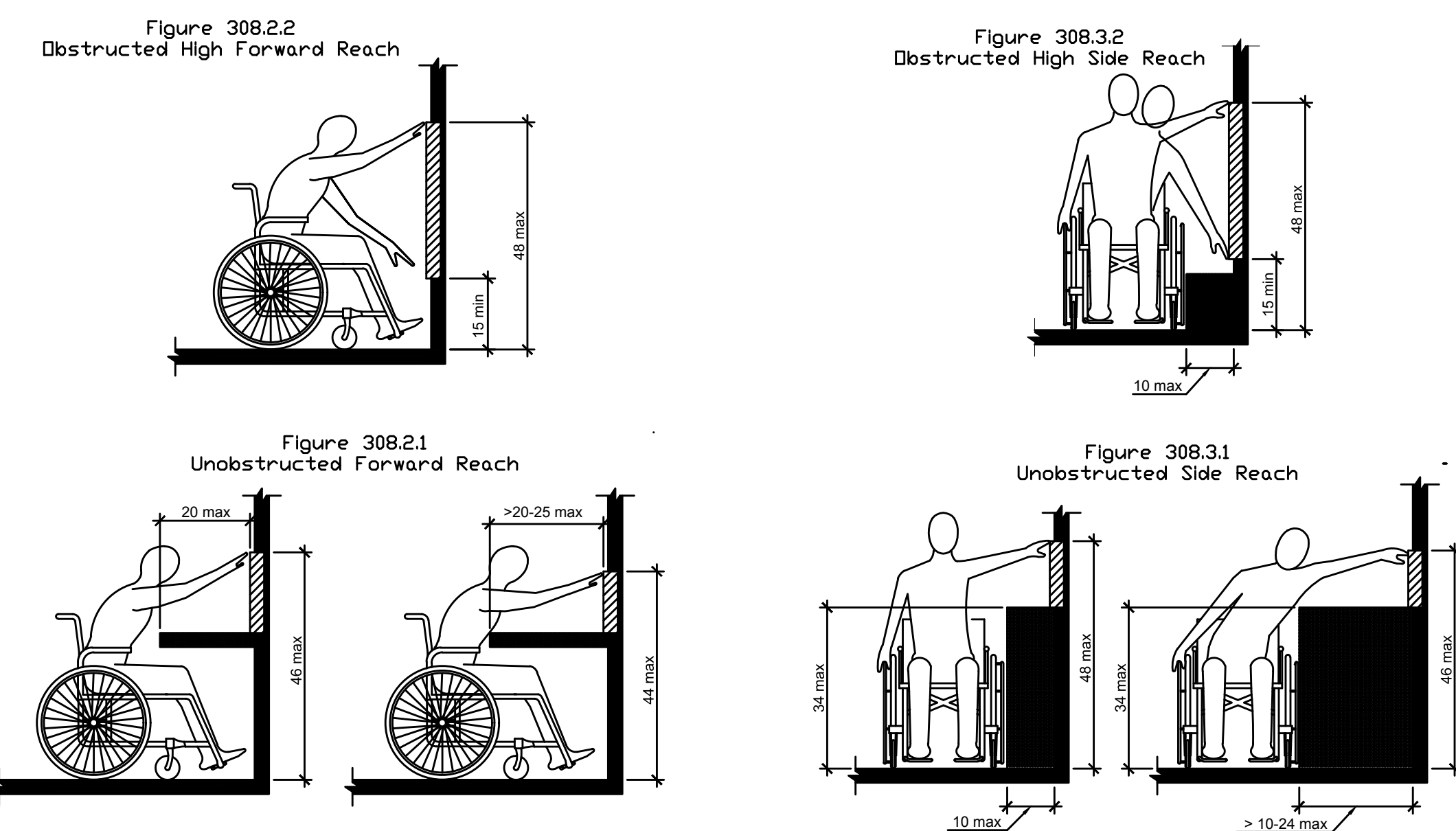


3 SWITCHBOARD/PANEL LABELING DETAIL
E1.22 NO SCALE

NOTE: ALL LETTERS ARE ENGRAVED WHITE

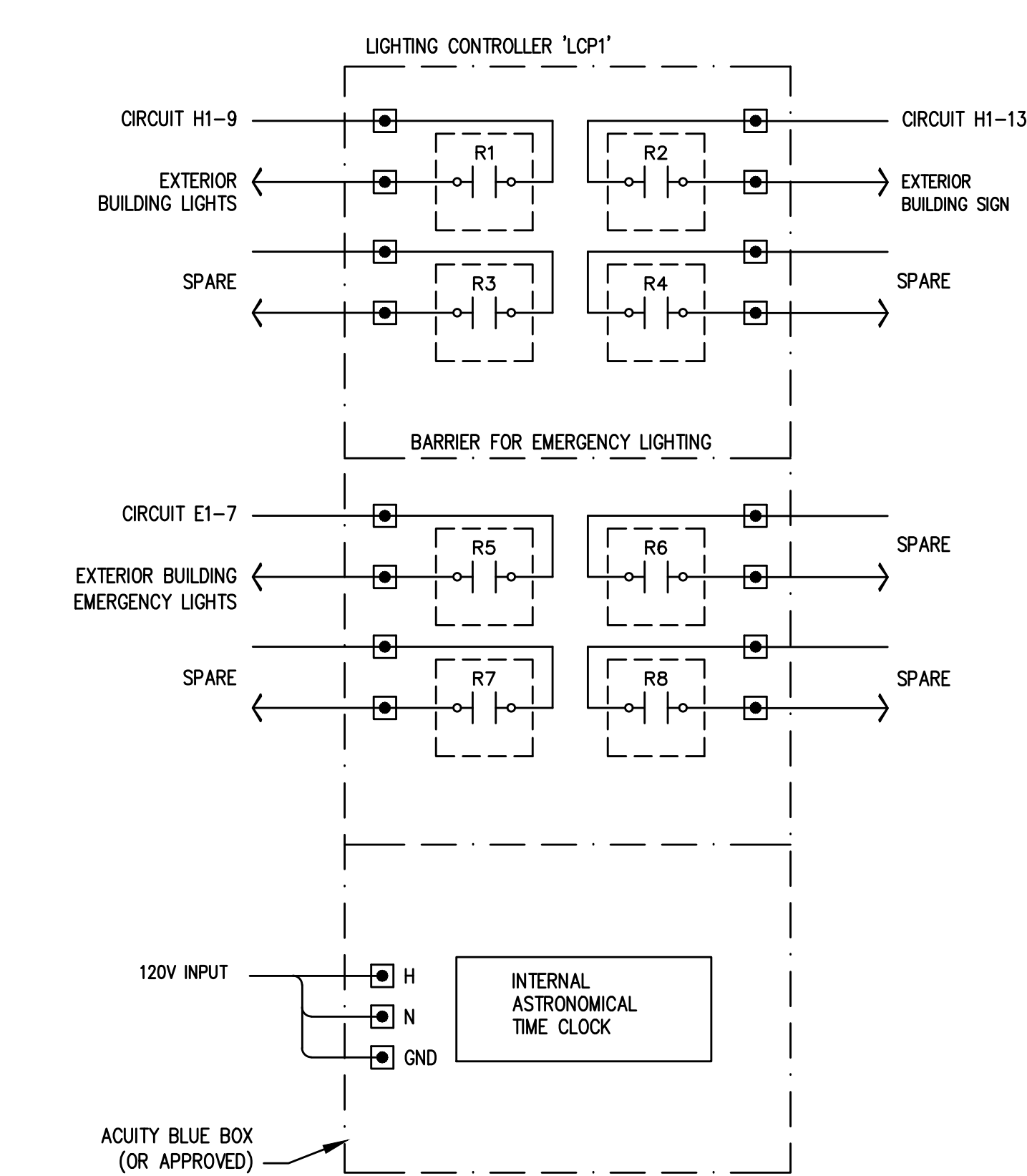


5 TYPICAL WASHER/DRYER ALCOVE
E1.22 NO SCALE

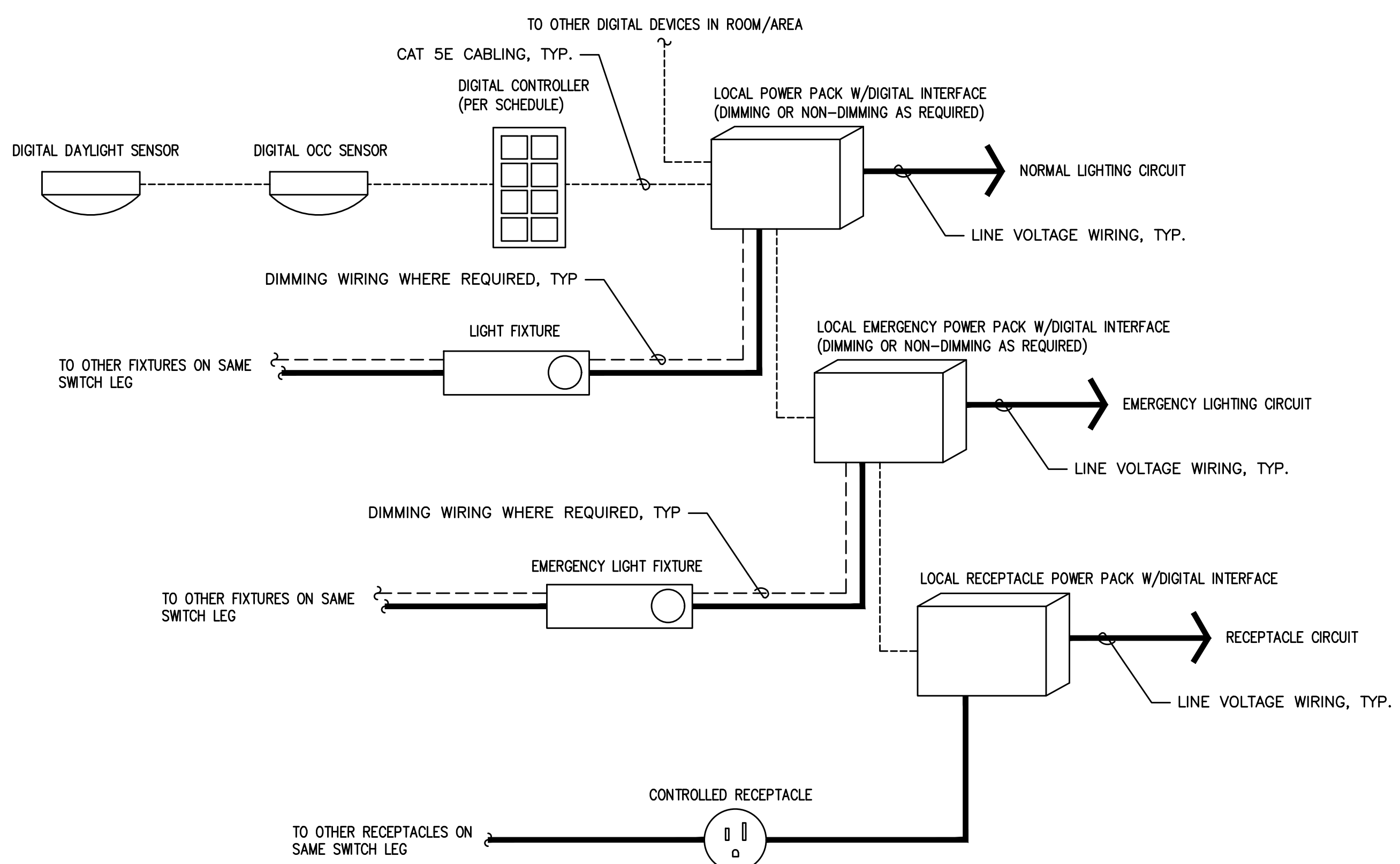


4 ADA REACH REQUIREMENTS
E1.22 NO SCALE

308.2 Forward Reach.
308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48" maximum and the low forward reach shall be 15" minimum above the floor or ground.
308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor or ground space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48" maximum where the reach depth is 20" maximum. Where the reach depth exceeds 20", the high forward reach shall be 44" maximum and the reach depth shall be 25" maximum.
308.3 Side Reach.
308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48" maximum and the low side reach shall be 15" minimum above the floor or ground.
Exception: Existing elements shall be permitted at 54" maximum above the floor or ground.
308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an object and the high side reach is over an obstruction, the height of the obstruction shall be 34" maximum and the depth of the obstruction shall 24" maximum. The high side reach shall be 48" maximum for a reach depth of 10" maximum. Where the reach depth exceeds 10", the high side reach shall be 46" maximum for a reach depth of 24" maximum.



6 LIGHTING CONTROL
SYSTEM DIAGRAM - LCP1
E1.22 NO SCALE



7 LIGHTING/RECEPTACLE
CONTROL DIAGRAM (TYPICAL)
E1.22 NO SCALE

LIGHTING CONTROLS LEGEND

\$L1	DIGITAL CONTROLLER WITH ON/OFF PUSHBUTTONS
\$L2	DIGITAL CONTROLLER WITH SINGLE ZONE ON/OFF PUSHBUTTONS AND UP/DOWN DIM BUTTONS
\$L3	DIGITAL GRAPHIC CONTROLLER WITH MULTI ZONE ON/OFF PUSHBUTTONS AND UP/DOWN DIM BUTTONS



08/08/2019

ADD 01 / PERMIT REV.

10.18.2019

Issue: date:

50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	
ADD 01	10.18.2019
PERMIT REV 2	

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:

ENERGY
COMPLIANCE
REPORT

sheet:

E1.23

COMcheck Software Version 4.1.1.0
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: 600 W. Front Street Mixed Use Bldg
Project Type: New Construction

Construction Site: 600 W. Front Street, Boise, ID 83702
Owner/Agent: Host Architects, 110 SE 8th Ave., Portland, OR 97214, 503.233.9856
Designer/Contractor: MFA Consulting Engineers, 2007 SE Ash Street, Portland, OR 97214, 503.234.0548

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B X C)
1-Main Lobby (Common Space Types:Lobby - General)	654	0.81	700
2-Stairwells (Common Space Types:Stairwell)	1765	0.62	1094
3-Restrooms (Common Space Types:Restrooms)	113	0.88	99
4-Corridors (Common Space Types:Corridor/Transition <8 ft wide)	4489	0.59	2654
5-Equipment Rooms (Common Space Types:Electrical/Mechanical)	2933	0.65	1928
6-Community Spaces (Common Space Types:Conference/Meeting/Multipurpose)	284	1.11	293
Total Allowed Watts = 6569			

Proposed Interior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Main Lobby (Common Space Types:Lobby - General)				
LED 6: L1: LRG PENDANT: LED Panel 60W	1	1	60	60
LED 6: L2: MED PENDANT: LED Panel 33W	1	1	30	30
LED 7: L3: MINI PENDANT: LED A Lamp 13W	1	5	13	65
LED 8: C2: COVE LIGHT: LED Undercabinet Unit 4W	1	35	5	175
2-Stairwells (Common Space Types:Stairwell)				
LED 10: B1: 4FT STRIP: LED Linear 22W	1	32	22	704
3-Restrooms (Common Space Types:Restrooms)				
LED 11: C1: 4" DOWNLIGHT: LED MR 10W	1	2	10	20
LED 23: D1: 24" VANITY LIGHT: LED A Lamp 25W	1	2	25	50
4-Corridors (Common Space Types:Corridor/Transition <8 ft wide)				
LED 10: B2: 4FT STRIP: LED Linear 22W	1	4	22	88
LED 11: L4: LED TRACK HEAD: LED PAR 20W	1	20	21	420
LED 8 copy 1: C2: COVE LIGHT: LED Undercabinet Unit 4W	1	112	5	560
LED 13: L5: WALL SCONCE: LED A Lamp 15W	1	75	15	875

Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 1 of 8

Section & Req. ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	Complies	
C405.2.1 [EL18]	Occupancy sensors installed in required spaces.	Complies	
C405.2.2 [EL23]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	Complies	
C405.2.2 [EL22]	Automatic controls to shut off all building lighting installed in all buildings.	Complies	
C405.2.3 [EL16]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	Complies	
C405.2.3 [EL20]	Primary sidelighted areas are equipped with required lighting controls.	Complies	
C405.2.3 [EL21]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	Complies	
C405.2.4 [EL4]	Separate lighting control devices for specific uses installed per approved lighting plans.	Complies	
C405.2.4 [EL8]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	Complies	
C405.2.5 [EL25]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 50%.	Complies	
C405.3 [EL6]	Exit signs do not exceed 5 watts per face.	Complies	

Additional Comments/Assumptions:
1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 5 of 8

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
5-Equipment Rooms (Common Space Types:Electrical/Mechanical)				
LED 16: A1: 8FT STRIP: LED Linear 22W	1	10	18	180
LED 10 copy 1: B2: 4FT STRIP: LED Linear 22W	1	7	22	154
6-Community Spaces (Common Space Types:Conference/Meeting/Multipurpose)				
LED 15: C1: 4" DOWNLIGHT: LED MR 10W	1	8	10	80
LED 15 copy 1: C3: 4" ADJ DOWNLIGHT: LED MR 10W	1	1	10	10
Total Proposed Watts = 4331				

Interior Lighting PASSES: Design 34% better than code
Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
Denise Taylor, Designer
8/5/19

Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 2 of 8

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 6 of 8

COMcheck Software Version 4.1.1.0
Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: 600 W. Front Street Mixed Use Bldg
Project Type: New Construction
Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site: 600 W. Front Street, Boise, ID 83702
Owner/Agent: Host Architects, 110 SE 8th Ave., Portland, OR 97214, 503.233.9856
Designer/Contractor: MFA Consulting Engineers, 2007 SE Ash Street, Portland, OR 97214, 503.234.0548

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Main Entry (Main entry)	3 ft of door	20	Yes	60
All Bldg Entries (Other door not main entry)	18 ft of door	20	Yes	360
Roof Terrace (Special feature area)	585 ft ²	0.14	Yes	82
Total Tradable Watts (a) =				502
Total Allowed Watts =				600
Total Allowed Supplemental Watts (b) =				600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Main Entry (Main entry: 3 ft of door width): Tradable Wattage				
LED 1: S1: AWWING STRIP: LED Other Fixture Unit 6.5W	1	6	6	39
All Bldg Entries (Other door not main entry): 18 ft of door width): Tradable Wattage				
LED 2: S1: AWWING STRIP: LED Other Fixture Unit 6.5W	1	19	6	124
Roof Terrace (Special feature area 585 ft²): Tradable Wattage				
LED 3: S3: EXTERIOR SCONCE: LED A Lamp 8W	1	2	8	16
LED 3 copy 1: S6: EXTERIOR SCONCE: LED A Lamp 3.2W	1	3	6	10
Total Tradable Proposed Watts = 199				

Exterior Lighting PASSES: Design 83% better than code
Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
Denise Taylor, Designer
8/5/19

Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 3 of 8

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 7 of 8

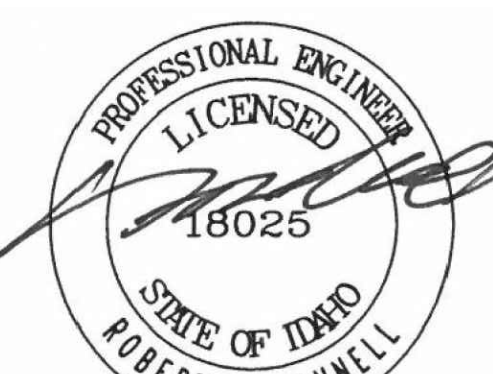
COMcheck Software Version 4.1.1.0
Inspection Checklist

Energy Code: 2015 IECC
Requirements: 0.0% were addressed directly in the COMcheck software
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section & Req. ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	Complies	
C103.2 [PR8]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	Complies	
C405 [PR3]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	Complies	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: 600 W. Front Street Mixed Use Bldg Report date: 08/05/19
Data filename: G:\Holst Architecture\9738_600 W Front Street ID\Energy Forms\600 W-LTG COMCHECK.cck Page 4 of 8



08/08/2019

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- G. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE.
- H. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- I. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- J. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.
- K. PROVIDE DIGITAL LIGHTING CONTROLS FOR EACH ROOM/SPACE, CONSISTING OF MULTI-BUTTON SWITCH(ES), OCC SENSORS, POWER PACKS, DAYLIGHT SENSORS, DIMMERS, INTERCONNECTING WIRING, ETC.

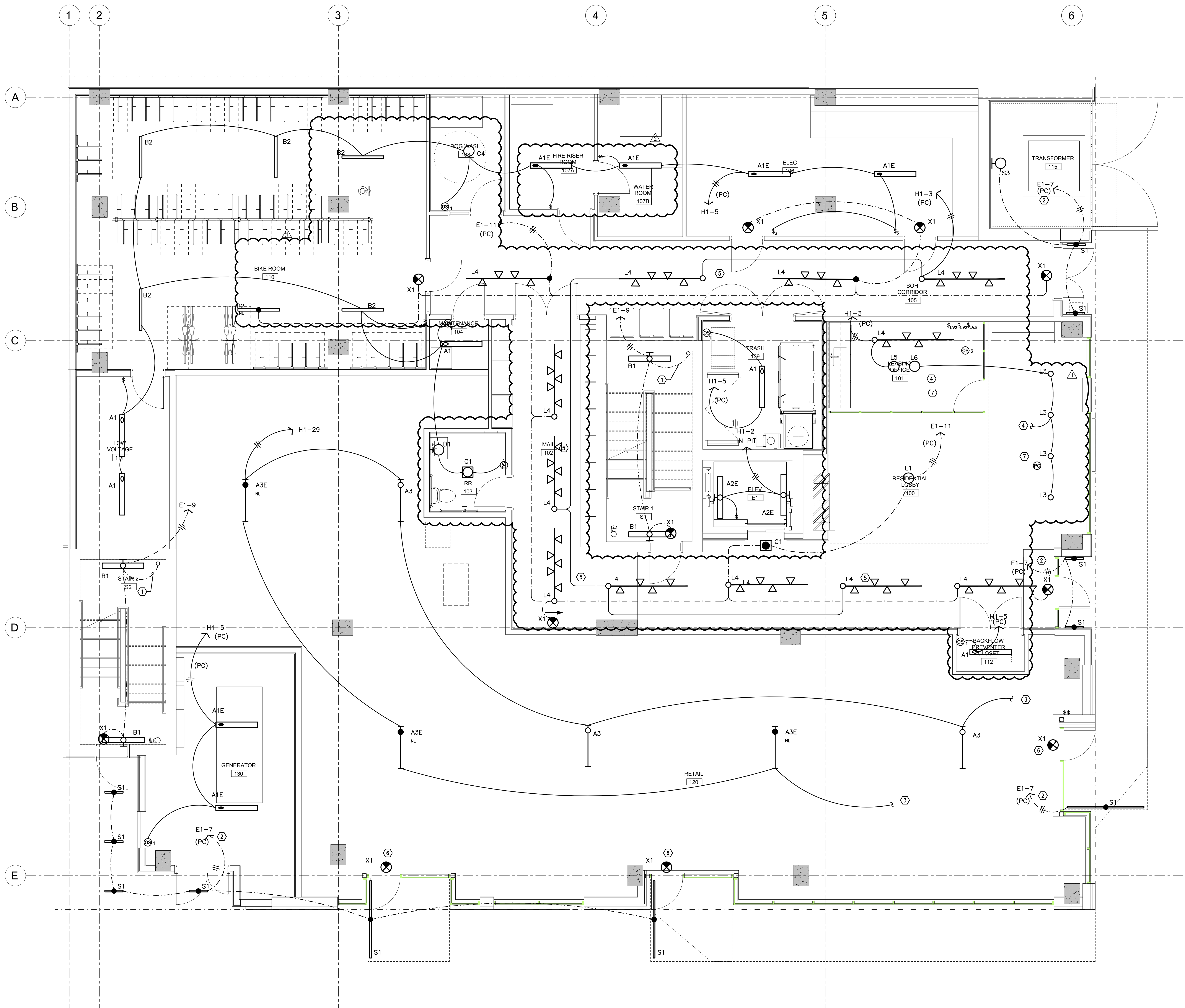
KEYED NOTES:

- 1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
- 2. CIRCUIT EXTERIOR LIGHTS VIA ROOF MOUNTED PHOTOCELL FOR DUSK-TILL-DAWN OPERATION.
- 3. LEASE SPACE LIGHTING TO HAVE DUAL SWITCHES. ONE TO CONTROL NORMAL POWER LIGHTS AND ONE TO CONTROL NIGHT LIGHT FIXTURES (NL). INTENT IS THAT THE NIGHT LIGHTS ARE TO BE ON 24/7. NIGHT LIGHT FIXTURES SHALL BE EQUIPPED WITH EMERGENCY BATTERY BACKUP IN THE EVENT OF A POWER FAILURE. ALL LIGHT FIXTURES IN THE LEASE SPACE ARE TO BE ON A SINGLE CIRCUIT AND TEMPORARILY FED FROM THE HOUSE PANEL.
- 4. FIXTURES CONTROLLED VIA LOW VOLTAGE LIGHTING CONTROLS LOCATED IN THE LEASE OFFICE. REFER TO SHEET E1.22 FOR ADDITIONAL INFORMATION. CONSULT WITH ARCHITECT FOR EXACT CONTROLLING PREFERENCES.
- 5. CORRIDOR LIGHTING CONTROLLED VIA LOW VOLTAGE LIGHTING CONTROL SYSTEM. REFER TO SHEET E1.21 & E1.22 FOR ADDITIONAL INFORMATION. FIXTURES ON EMERGENCY POWER CIRCUIT SHALL BE "ON" 24/7 (NO DIMMING) FOR EGRESS.
- 6. TIE INTO TEMPORARY LIGHTING CIRCUIT AND ENSURE BATTERY BACK UP POWER FOR EGRESS.
- 7. CONSULT ARCHITECTURAL PLANS FOR SPACING. (TYPICAL FOR ALL LIGHT FIXTURES).

ADD 01 / PERMIT REV.

Issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.04.2019
ADD 01	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019



1 LEVEL 01 - LIGHTING PLAN
E2.01 SCALE: 1/4" = 1'-0"

title:
LEVEL 01
LIGHTING PLAN

sheet:
E2.01



08/08/2019

GENERAL LIGHTING NOTES:

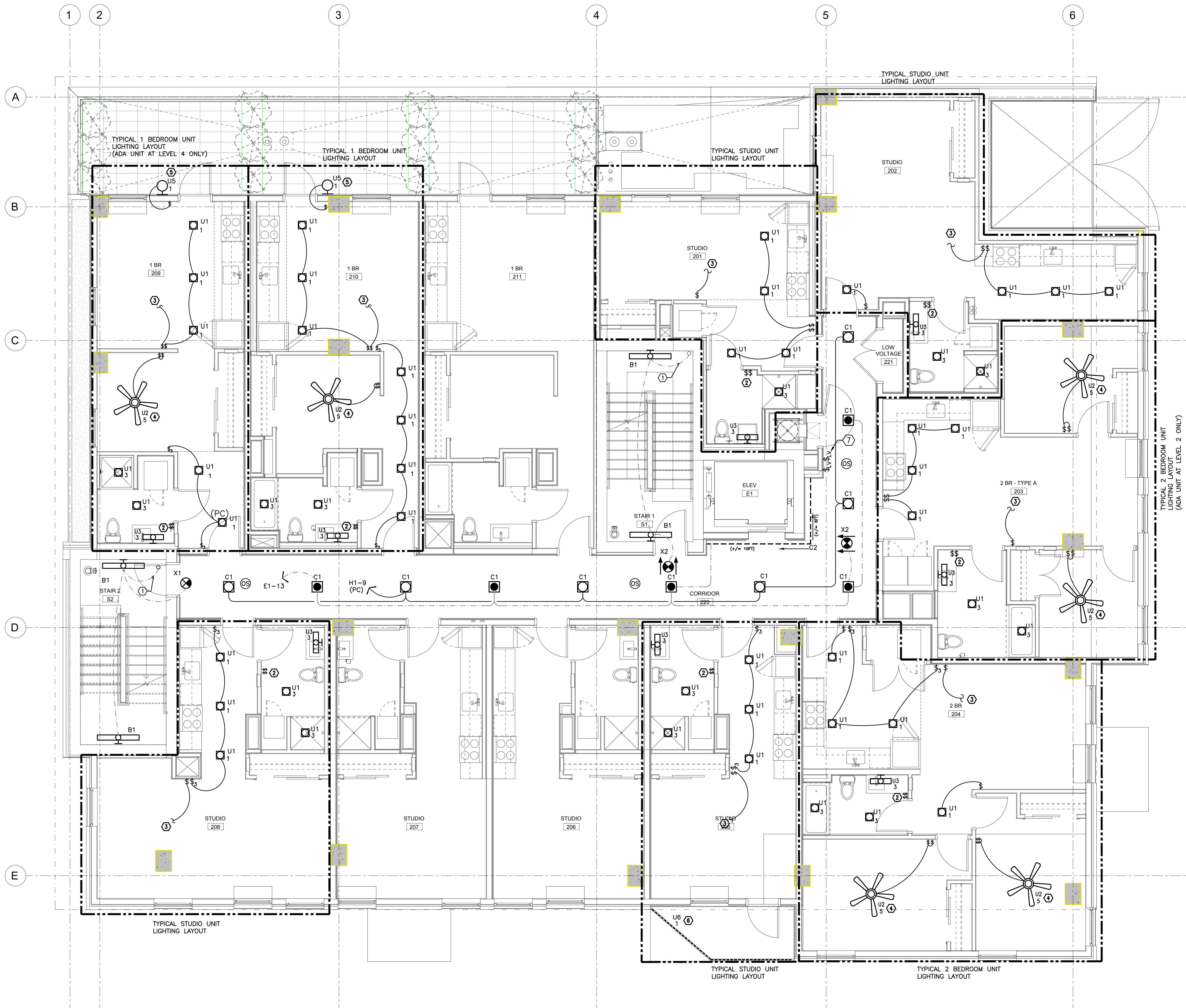
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

- A. TYPICAL DWELLING UNIT PLANS SHOWN ARE REPRESENTATIVE OF THE BASIC LAYOUT FOR EACH UNIT TYPE.
- B. CONTRACTOR TO CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR EXACT FIXTURE LOCATIONS FOR EACH UNIT TYPE PRIOR TO ROUGH IN.
- C. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- D. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- E. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.
- F. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

KEYED NOTES:

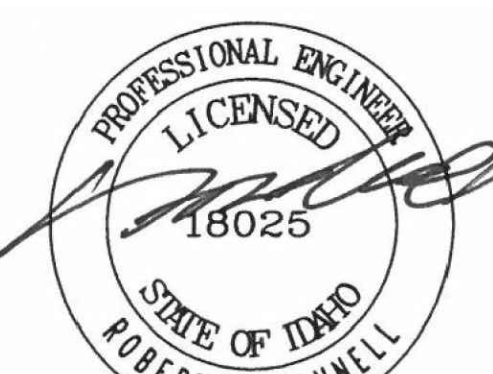
- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22 FOR DETAIL SHOWING VANITY LIGHT SWITCHED SEPARATE FROM CEILING LIGHTS.
- 3. REFER TO E3.02 FOR SWITCHED RECEPTACLE LOCATION.
- 4. PROVIDE STRUCTURAL BRACING IN CEILING TO SUPPORT A MINIMUM OF 35LBS AT CEILING FAN LOCATIONS.
- 5. RESIDENTIAL UNITS WITH BALCONIES OR PATIOS SHALL BE PROVIDED WITH TYPE 'U5' EXTERIOR SCONCE LIGHT, LOCAL SINGLE POLE SWITCH AND BE CIRCUITED VIA THE LOAD CENTER CIRCUIT FOR LIVING AREA LIGHTING.
- 6. RESIDENTIAL UNITS WITH BALCONIES OR PATIOS SHALL BE PROVIDED WITH TYPE 'U6' EXTERIOR LED HANDRAIL LIGHT, REFER TO SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 7. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



1 LEVEL 02 - LIGHTING PLAN
E2.02 SCALE: 1/4" = 1'-0"

title:
LEVEL 02
LIGHTING PLAN

sheet:
E2.02



08/08/2019

ADD 01 / PERMIT REV.

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01	PERMIT REV 1
ADD 01	PERMIT REV 2

revision:	date:	
1	REV 01	10.04.2019
2	REV 02	10.18.2019

title:
LEVEL 03
LIGHTING PLAN

sheet:
E2.03

GENERAL LIGHTING NOTES:

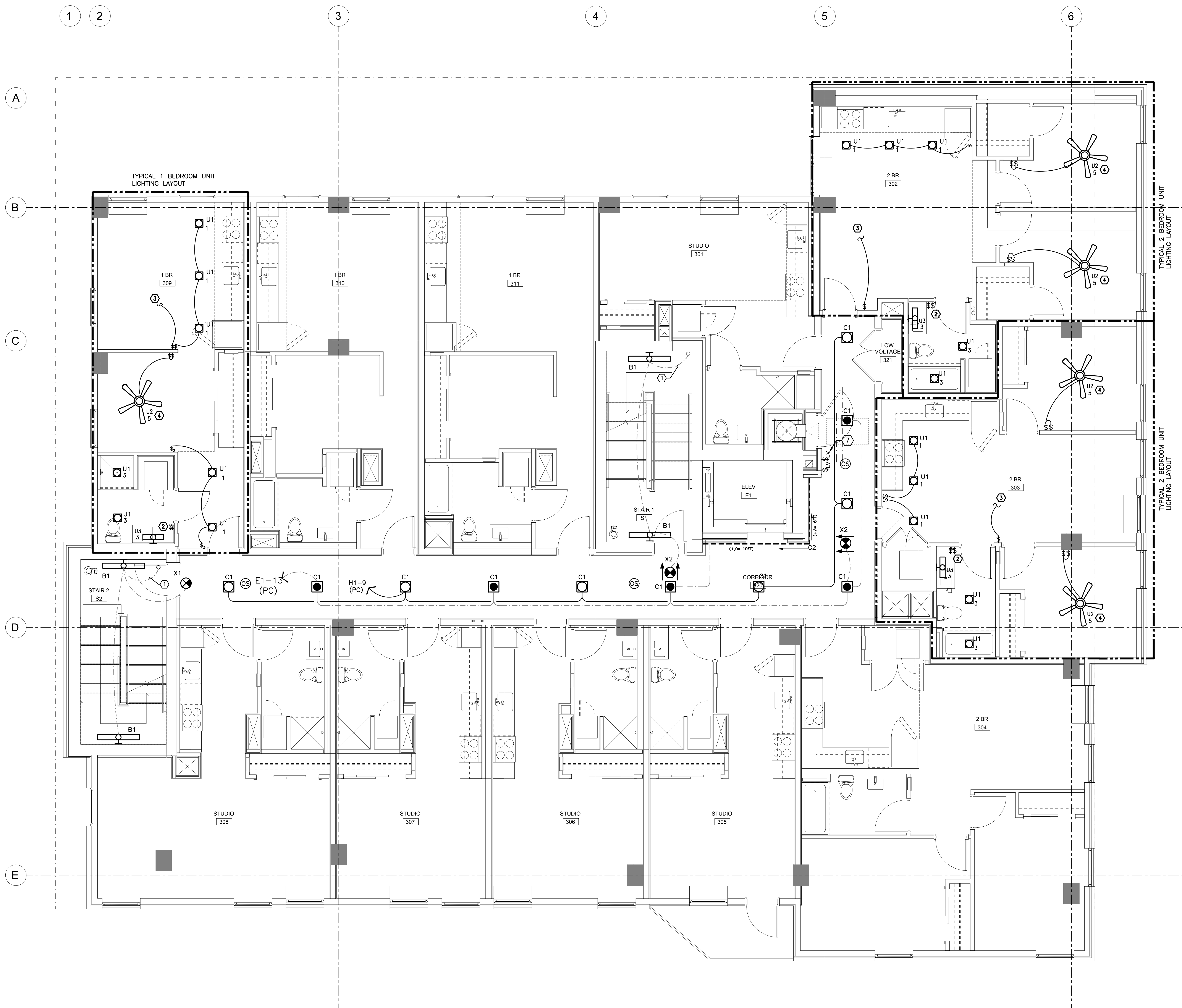
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

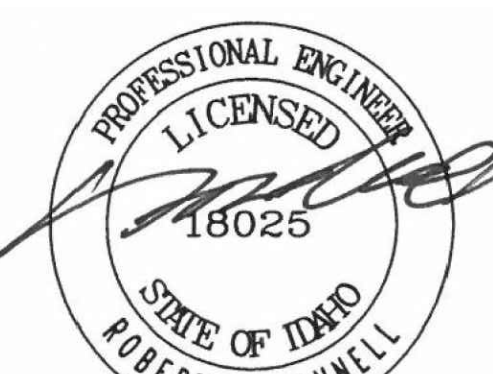
- A. TYPICAL DWELLING UNIT PLANS SHOWN ARE REPRESENTATIVE OF THE BASIC LAYOUT FOR EACH UNIT TYPE.
- B. CONTRACTOR TO CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR EXACT FIXTURE LOCATIONS FOR EACH UNIT TYPE PRIOR TO ROUGH IN.
- C. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- D. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- E. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.
- F. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22 FOR DETAIL SHOWING VANITY LIGHT SWITCHED SEPARATE FROM CEILING LIGHTS.
- 3. REFER TO E3.02 FOR SWITCHED RECEPTACLE LOCATION.
- 4. PROVIDE STRUCTURAL BRACING IN CEILING TO SUPPORT A MINIMUM OF 35LBS AT CEILING FAN LOCATIONS.
- 5. RESIDENTIAL UNITS WITH BALCONIES OR PATIOS SHALL BE PROVIDED WITH TYPE "US" EXTERIOR SCONCE LIGHT, LOCAL SINGLE POLE SWITCH AND BE CIRCUITED VIA THE LOAD CENTER CIRCUIT FOR LIVING AREA LIGHTING.
- 6. RESIDENTIAL UNITS WITH BALCONIES OR PATIOS SHALL BE PROVIDED WITH TYPE "US" EXTERIOR LED HANDRAIL LIGHT, REFER TO SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 7. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



1 LEVEL 03 - LIGHTING PLAN
E2.03 SCALE: 1/4" = 1'-0"



08/08/2019

GENERAL LIGHTING NOTES:

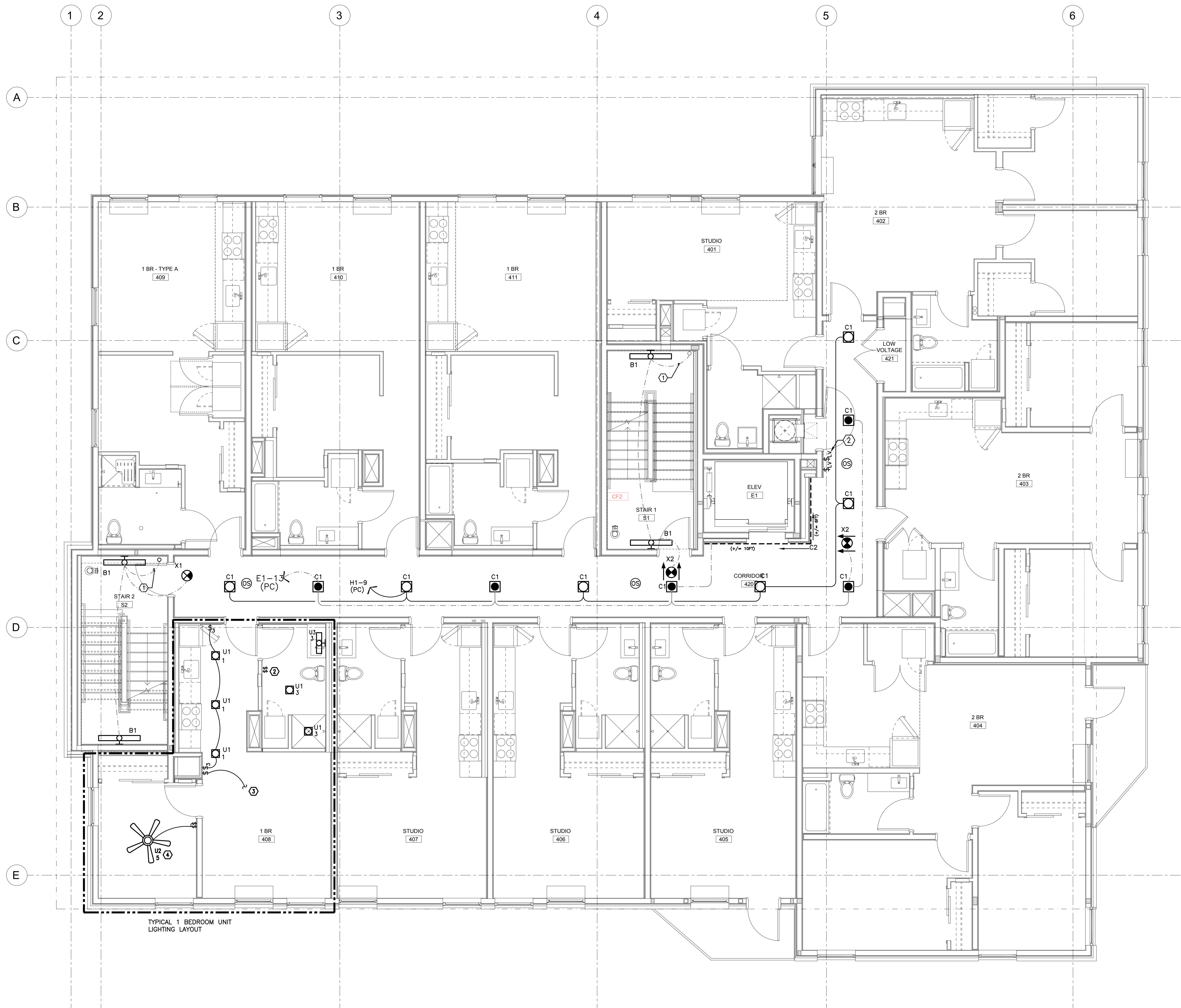
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
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- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
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- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

- A. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- B. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- C. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



TYPICAL 1 BEDROOM UNIT
LIGHTING LAYOUT

1 LEVEL 04 - LIGHTING PLAN
E2.04 SCALE: 1/4" = 1'-0"

ADD 01 / PERMIT REV.

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.04.2019
ADD 01	10.18.2019
PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
LEVEL 04
LIGHTING PLAN

sheet:
E2.04



08/08/2019

GENERAL LIGHTING NOTES:

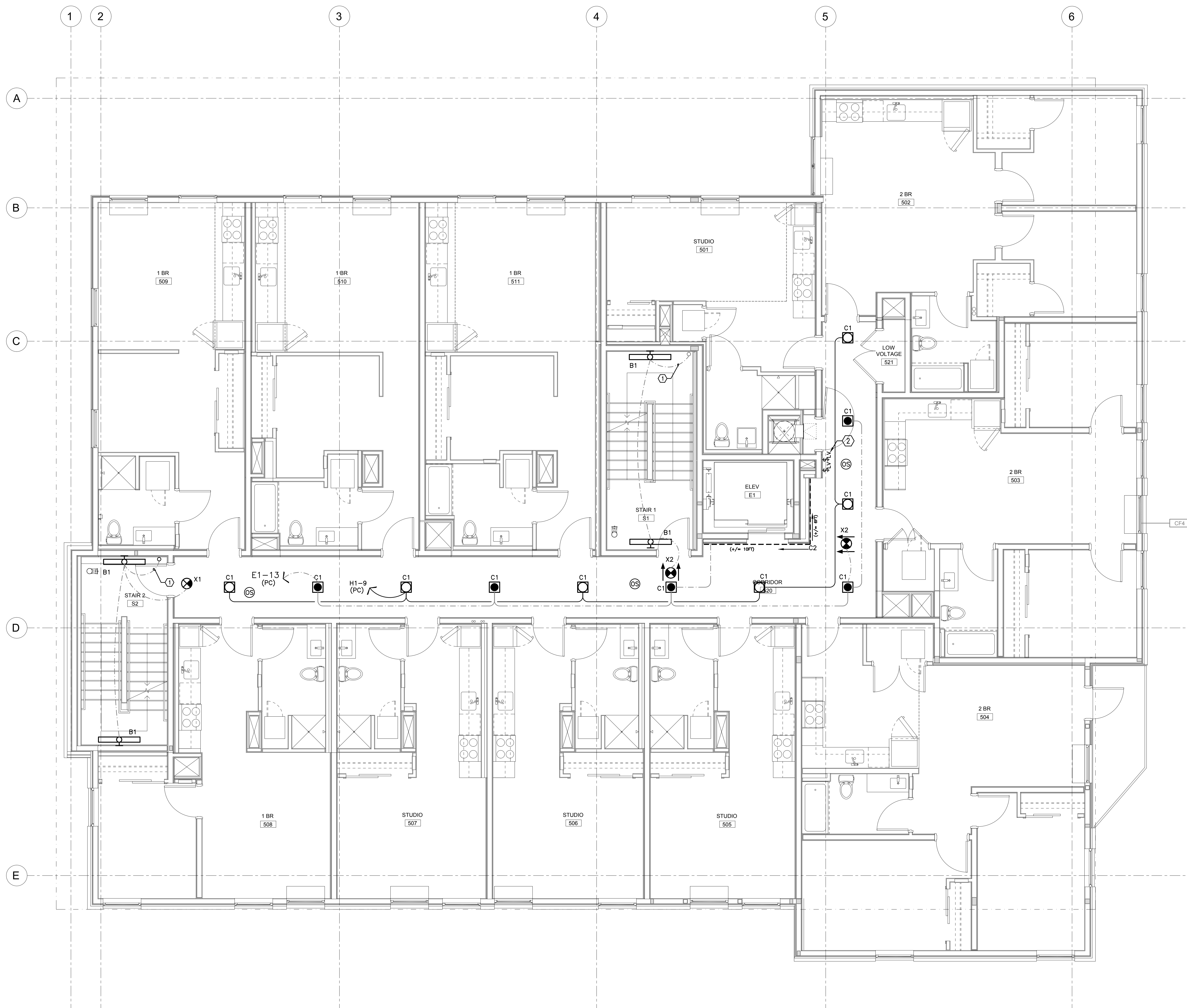
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
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- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

- A. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- B. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- C. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



1 LEVEL 05 - LIGHTING PLAN
E2.05 SCALE: 1/4" = 1'-0"

ADD 01 / PERMIT REV.

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.04.2019
ADD 01	10.18.2019
PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
LEVEL 05
LIGHTING PLAN

sheet:
E2.05



08/08/2019

GENERAL LIGHTING NOTES:

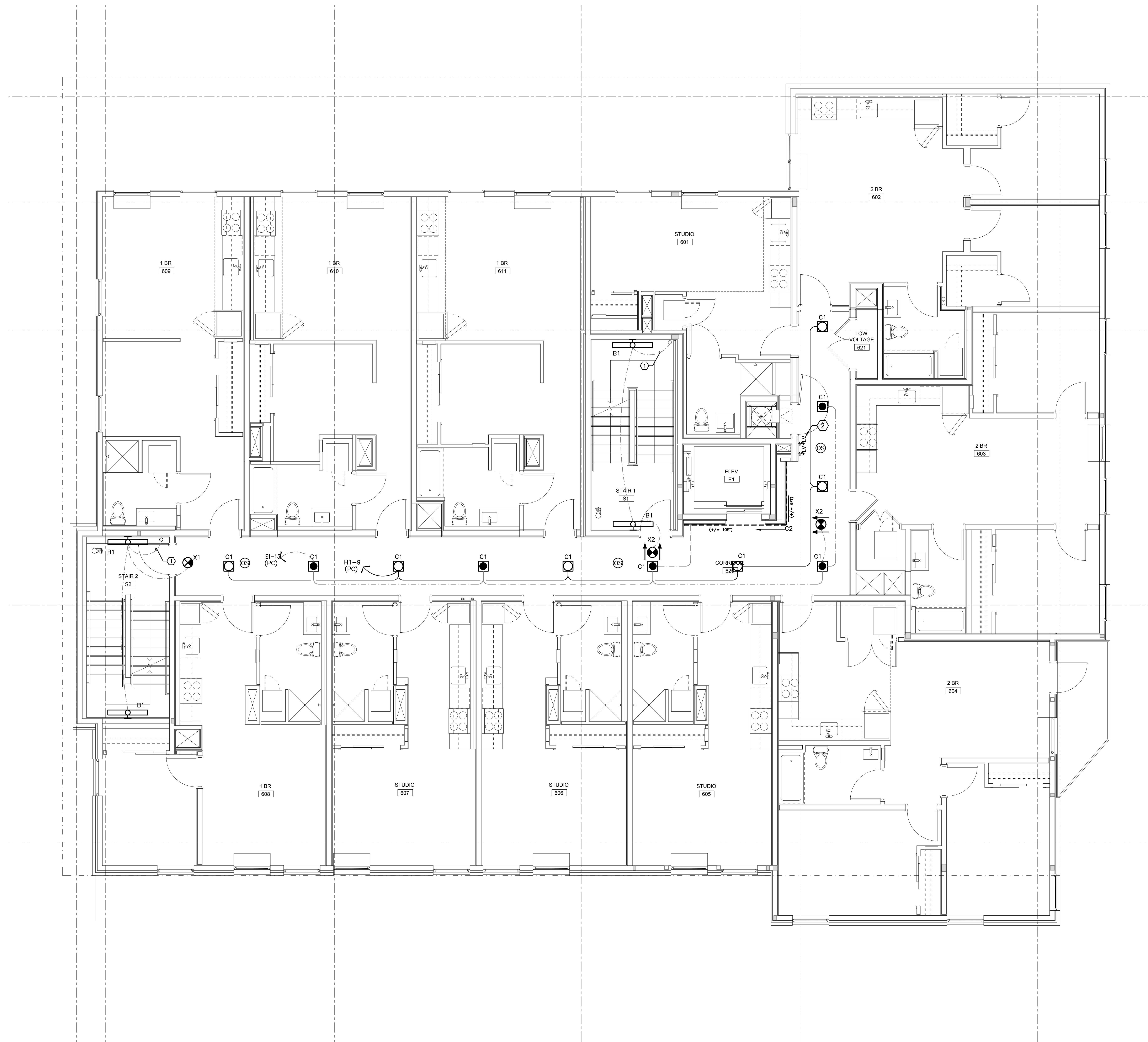
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
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- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

- A. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- B. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- C. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



1 LEVEL 06 - LIGHTING PLAN
E2.06 SCALE: 1/4" = 1'-0"

ADD 01 / PERMIT REV.

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.04.2019
ADD 01	10.18.2019
PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
LEVEL 06
LIGHTING PLAN

sheet:
E2.06



08/08/2019

GENERAL LIGHTING NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
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- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

- A. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- B. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- C. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.

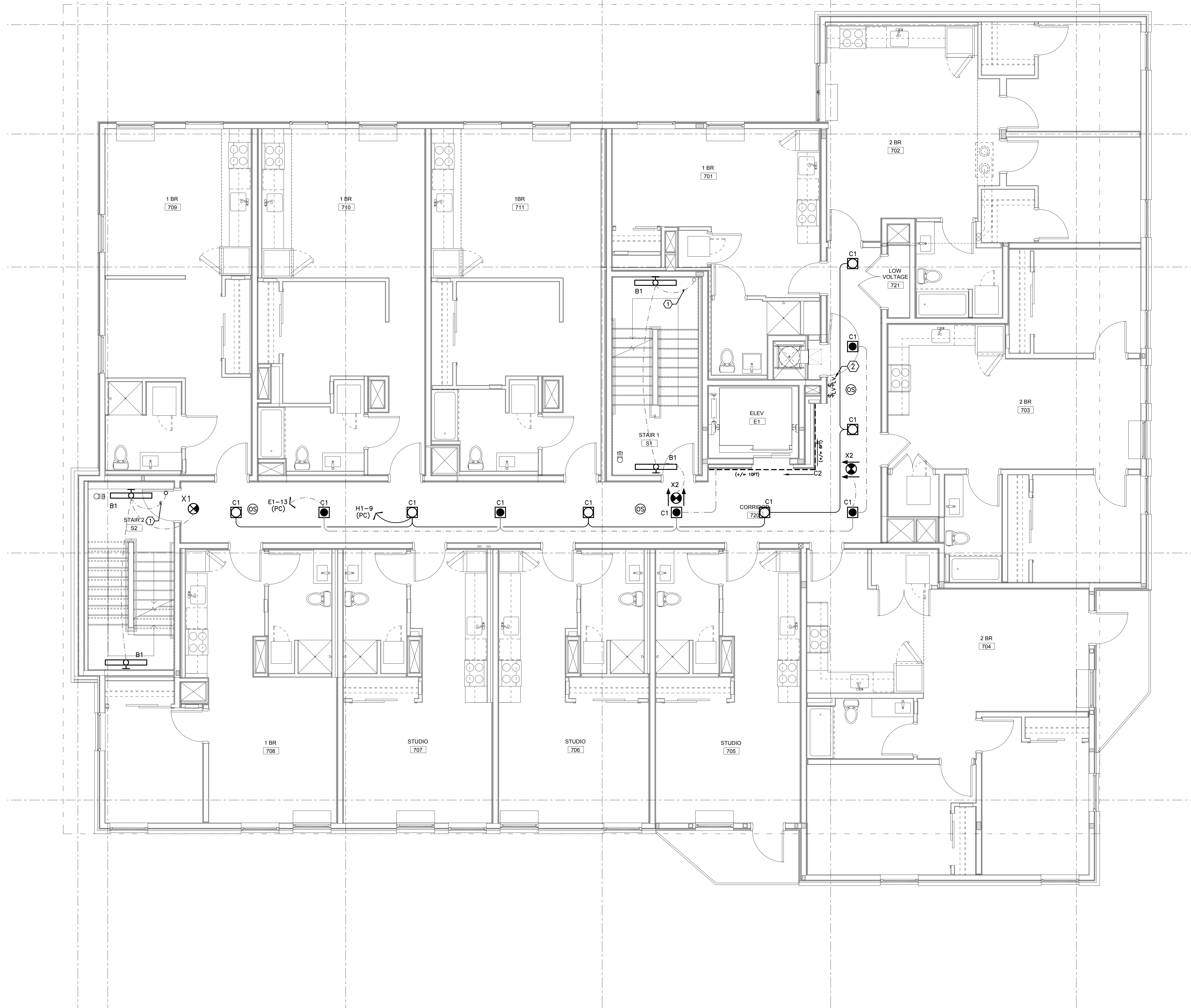
ADD 01 / PERMIT REV.

issue:	date:
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100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
PERMIT REV 1	10.04.2019
ADD 01	10.18.2019
PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
LEVEL 07
LIGHTING PLAN

sheet:
E2.07



1 LEVEL 07 - LIGHTING PLAN
E2.07 SCALE: 1/4" = 1'-0"



08/08/2019

ADD 01 / PERMIT REV.

issue:	date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01 PERMIT REV 1	10.18.2019
ADD 01 PERMIT REV 2	10.18.2019

revision:	date:
1 REV 01	10.04.2019
2 REV 02	10.18.2019

title:
LEVEL 08
LIGHTING PLAN

sheet:
E2.08

GENERAL LIGHTING NOTES:

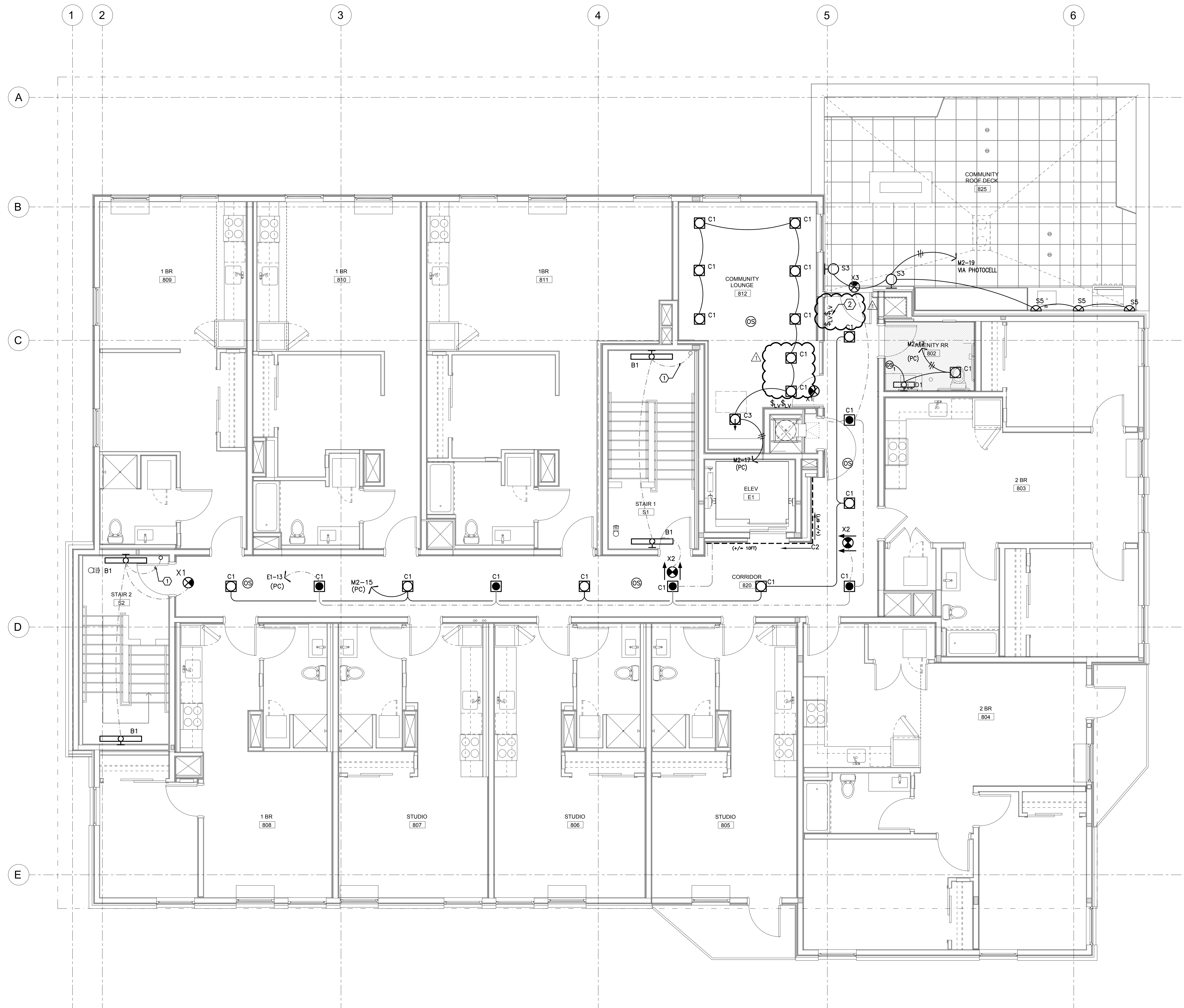
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE AND CONTROL DESIGN INTENT. SEE E1.22 FOR DIGITAL LIGHTING CONTROLS DIAGRAM(S).
- G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK
- H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- I. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE COVERAGE AND PROPER CONTROL.

DWELLING UNIT
GENERAL LIGHTING NOTES:

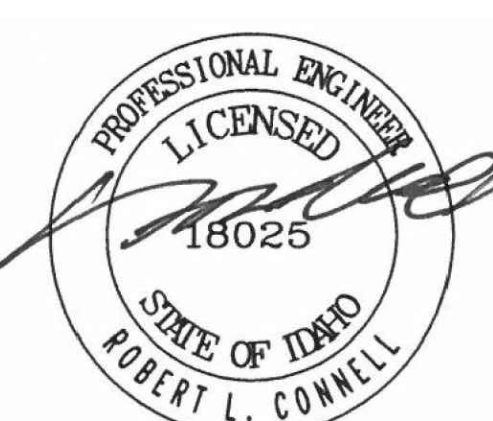
- A. REFER TO SHEET E2.02 & E2.03 FOR TYPICAL LIGHTING LAYOUTS FOR THE RESIDENTIAL UNITS.
- B. REFER TO SHEET E3.02 & E3.03 FOR TYPICAL POWER LAYOUTS FOR THE RESIDENTIAL UNITS.
- C. REFER TO SHEET E1.13 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES:

- 1. CONTINUED CIRCUIT FROM FLOOR BELOW.
- 2. LOW VOLTAGE LIGHTING OVERRIDE SWITCHES. REFER TO DETAILS ON E1.22. PROVIDE WITH LOCKING COVER.



1 LEVEL 08 - LIGHTING PLAN
E2.08 SCALE: 3/16" = 1'-0"



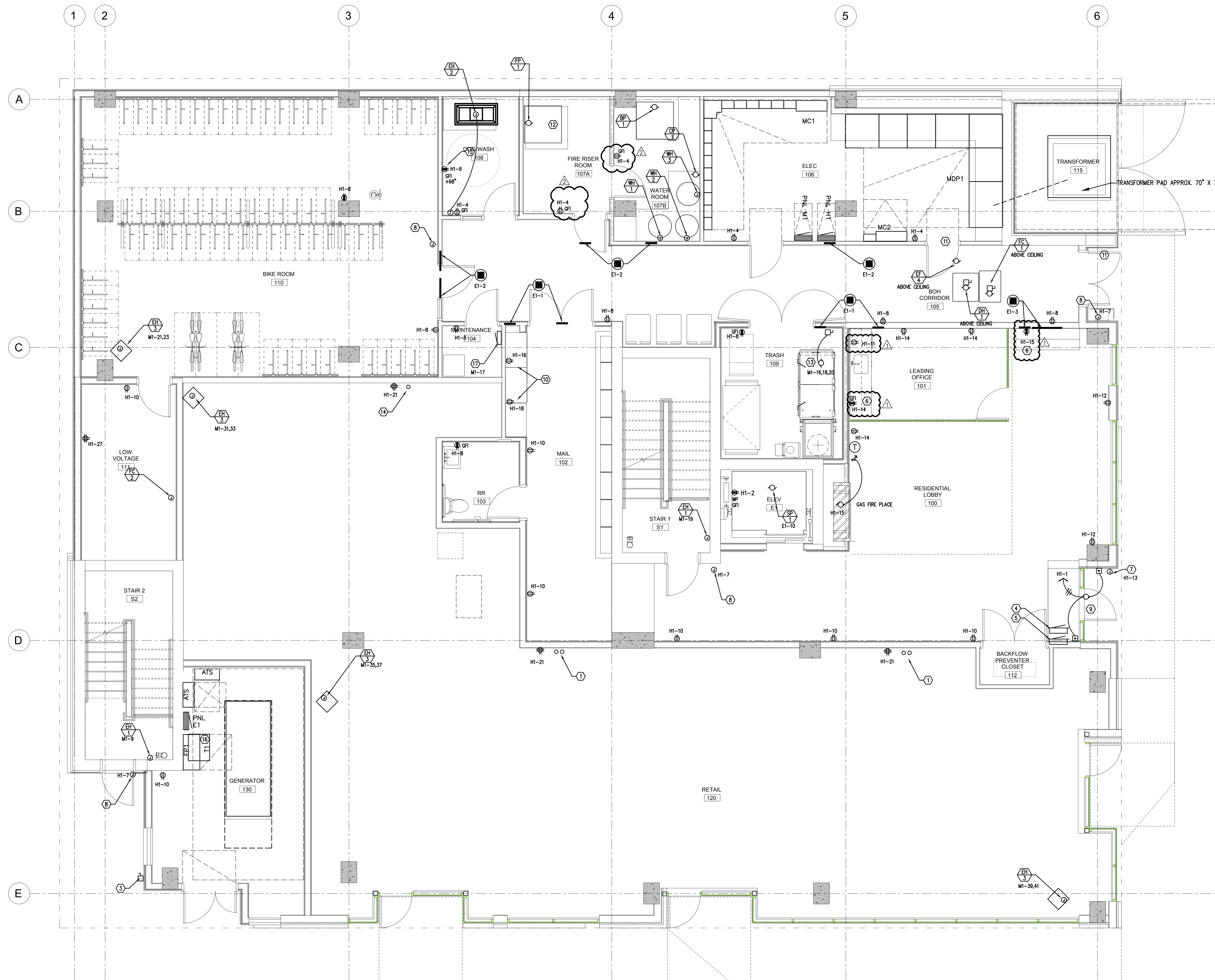
08/08/2019

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL CONTRACTOR FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- D. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.
- G. ELECTRICAL PANELS LOCATED IN PUBLIC OR UNSECURED SPACES SHALL BE PROVIDED WITH A LOCKABLE DOOR PANEL.
- H. PER IFC 5704.2.3.2, GENERATOR FUEL TANKS MORE THAN 100 GALLONS (379 L) IN CAPACITY, WHICH ARE PERMANENTLY INSTALLED OR MOUNTED AND USED FOR THE STORAGE OF CLASS I, II OR III LIQUIDS, SHALL BEAR A LABEL AND PLACARD IDENTIFYING THE MATERIAL THEREIN. PLACARDS SHALL BE IN ACCORDANCE WITH NFPA 704.
- I. ELECTRICAL CONTRACTOR TO VERIFY THAT THE SWITCHGEAR, GENERATOR AND OTHER LARGE EQUIPMENT PHYSICALLY FITS WITHIN THE SPACE, WHILE MAINTAINING REQUIRED WORK CLEARANCES, PRIOR TO SUBMITTAL.
- J. ELECTRICAL CONTRACTOR SHALL CONSULT WITH ALL OTHER TRADES PRIOR TO PROJECT START-UP FOR EXACT EQUIPMENT POWER REQUIREMENTS AND COORDINATE INSTALLATION AND FINAL POWER CONNECTIONS.
- K. ELECTRICAL CONTRACTOR SHALL CONSULT THE "T" SERIES PLAN SHEETS AND COORDINATE WITH THE LOW VOLTAGE SYSTEM(S) INSTALLER PRIOR TO PROJECT START-UP AND PROVIDE ROUGH IN ONLY FOR LOW VOLTAGE SYSTEMS.

KEYED NOTES:

- 1. CONDUIT STUB-UP FOR FUTURE TENANT ELEC. PANEL(S). PROVIDE (2) 4" EMPTY PVC CONDUITS WITH PULL STRING, ROUTED UNDERGROUND FROM ELECTRICAL ROOM. STUB UP AND CAP AT BOTH ENDS. REFER TO ELECTRICAL ONE-LINE DIAGRAM ON SHEET E1.11 FOR ADDITIONAL INFORMATION.
- 2. EXHAUST FAN TO BE TIED INTO LIGHTING CIRCUIT FOR THIS AREA.
- 3. GENERATOR EMERGENCY DISCONNECT. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
- 4. GENERATOR REMOTE ANNUNCIATOR. FED FROM PANEL E1.
- 5. FIRE ALARM REMOTE ANNUNCIATOR. FED FROM PANEL E1. REFER TO THE "T" SERIES SHEETS FOR EXACT LOCATION. PROVIDE ROUGH IN AS REQUIRED.
- 6. CONSULT ARCHITECT FOR RECEPTACLE & COVER PLATE FINISH.
- 7. 20A, 120V, 1P POWER CONNECTION FOR BUILDING SIGNS. CIRCUIT AS INDICATED, VIA LIGHTING CONTROL PANEL. MOUNT JUNCTION BOX TIGHT TO CEILING (BUILDING INTERIOR), COORDINATING EXACT LOCATION WITH SIGN INSTALLER'S SLEEVE AT EACH LOCATION.
- 8. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM PANEL 'H1' FOR BUILDING ENTRY ACCESS CONTROLS.
- 9. PROVIDE 20A, 120V, 1P POWER CONNECTION AT CEILING FOR AUTOMATIC DOOR OPENER(S). CIRCUIT AS NOTED.
- 10. PACKAGE CONCIERGE SYSTEM. RECEPTACLE MOUNTING HEIGHT PER MANUFACTURER'S REQUIREMENTS.
- 11. PROVIDE KEY BOX FOR ELECTRICAL UTILITY PROVIDED 24/7 ACCESS.
- 12. FIRE PUMP METER LOCATED IN ELECTRICAL EQUIPMENT ROOM. REFER TO ONE-LINE DIAGRAM ON E1.11.
- 13. CONSULT MANUFACTURER'S ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN FOR THE TRASH COMPACTOR (PROVIDED BY OWNER) AND COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT LOCATION AND TYPE OF THE COMPACTOR CONTROLS. CIRCUIT AS INDICATED.
- 14. CONDUIT STUB-UP FOR FUTURE FITNESS ROOM BRANCH PANEL. PROVIDE (1) 4" EMPTY PVC CONDUITS WITH PULL STRING, ROUTED UNDERGROUND FROM ELECTRICAL ROOM. STUB UP AND CAP AT BOTH ENDS. REFER TO ELECTRICAL ONE-LINE DIAGRAM ON SHEET E1.11 FOR ADDITIONAL INFORMATION.
- 15. PROVIDE ONE 20A DEDICATED GFCI RATED RECEPTACLE FOR PET DRYER (PROVIDED BY OWNER). CONSULT MANUFACTURER'S INSTALLATION REQUIREMENTS FOR MOUNTING HEIGHT, OR CONSULT ARCHITECT PRIOR TO ROUGH IN. CIRCUIT AS INDICATED.
- 16. ELECTRICAL CONTRACTOR TO PROVIDE UNI-STRUT SUPPORT FOR TRANSFORMER, TO BE MOUNTED AS CLOSE TO CEILING AS POSSIBLE WHILE STILL MAINTAINING APPROPRIATE WORKING CLEARANCES.
- 17. PROVIDE ONE 20A, 120V, 1P CIRCUIT FOR IRRIGATION CONTROLLER & CIRCUIT AS NOTED. ROUTE 1" PVC SCHEDULE 40 UNDERGROUND CONDUIT TO GROUND LEVEL PLANTING BEDS PER LANDSCAPING REQUIREMENTS. COORDINATE WITH LANDSCAPER FOR ALL ELECTRICAL NEEDS AND CONDUIT ROUTING PRIOR TO ROUGH IN.



1 LEVEL 01 - POWER PLAN
E3.01 SCALE: 3/16" = 1'-0"

LEVEL 01
POWER PLAN

sheet:
E3.01



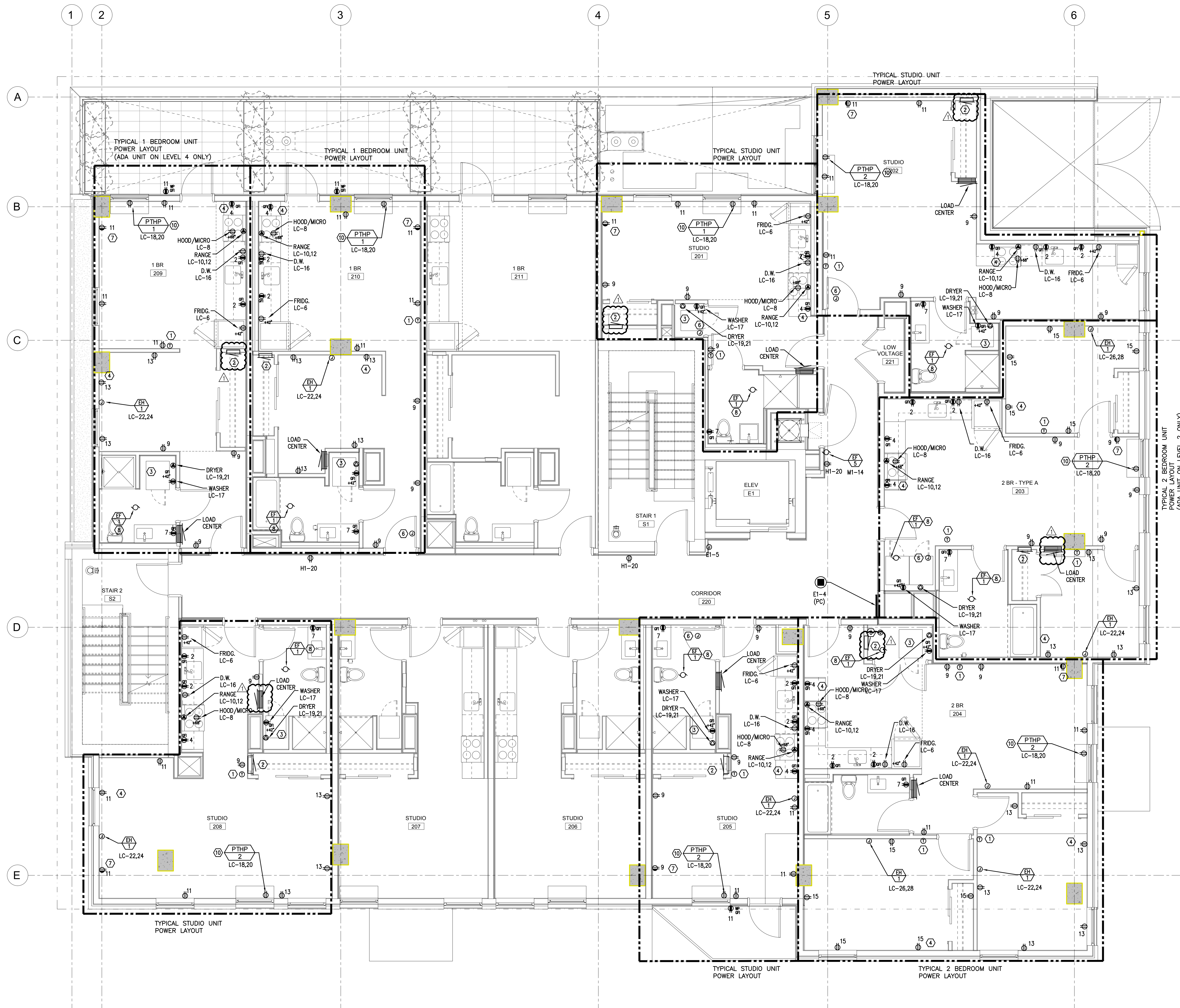
08/08/2019

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.

KEYED POWER NOTES

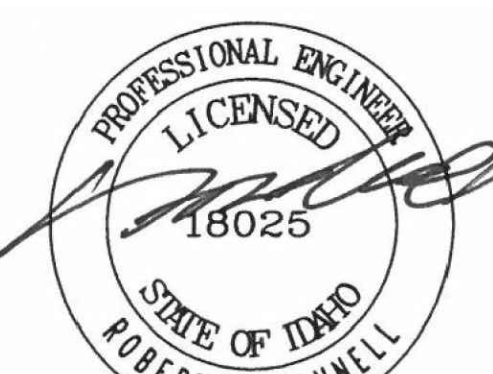
- ① PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- ② PROVIDE ONE 20A, 120V, 1P DUPLEX RECEPTACLE ON A DEDICATED CIRCUIT FED FROM THE TENANT LOAD CENTER FOR SMART PANEL. COORDINATE EXACT LOCATION WITH LOW VOLTAGE INSTALLER PRIOR TO ROUGH IN (REFER TO "T" SERIES SHEETS).
- ③ REFER TO DETAIL S/E1.22 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR PRIOR TO ROUGH IN.
- ④ PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F AT KITCHEN COUNTER & AT 18" AFF IN EACH MASTER BEDROOM.
- ⑤ PROVIDE ONE 20A, 120V, 1P GFCI DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.
- ⑥ PROVIDE ONE DEDICATED GFCI RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
- ⑦ HALF-SWITCHED DUPLEX RECEPTACLE. REFER TO TYPICAL UNIT PLANS FOR SWITCH LOCATION.
- ⑧ CONTINUOUS OPERATION BATHROOM EXHAUST FAN. TIE INTO BATHROOM LIGHT CIRCUIT.
- ⑨ PROVIDE ELECTRICAL ROUGH IN FOR LOW VOLTAGE DEVICES. REFER TO "T" SERIES SHEETS FOR ADDITIONAL INFORMATION. COORDINATE INSTALLATION WITH LOW VOLTAGE CONTRACTOR/INSTALLER.
- ⑩ RECEPTACLE FOR PTHP UNIT SHALL BE LOCATED BELOW THE UNIT, NEAR THE BASE OF THE WALL SUCH THAT THE CORD SET IS CONCEALED AS MUCH AS POSSIBLE. COORDINATE INSTALLATION WITH THE MECHANICAL INSTALLER.



1 LEVEL 02 - POWER PLAN
E3.02 SCALE: 1/4" = 1'-0"

LEVEL 02
POWER PLAN

sheet:
E3.02



08/08/2019

ADD 01 / PERMIT REV.

Issue:	Date:
50% SD	01.25.2019
100% SD	03.04.2019
100% DD	04.26.2019
20% CD	05.14.2019
PERMIT SET	08.08.2019
GMP SET	10.04.2019
ADD 01	PERMIT REV 1
	PERMIT REV 2

revision:	date:
1	REV 01
2	REV 02

LEVEL 03
POWER PLAN

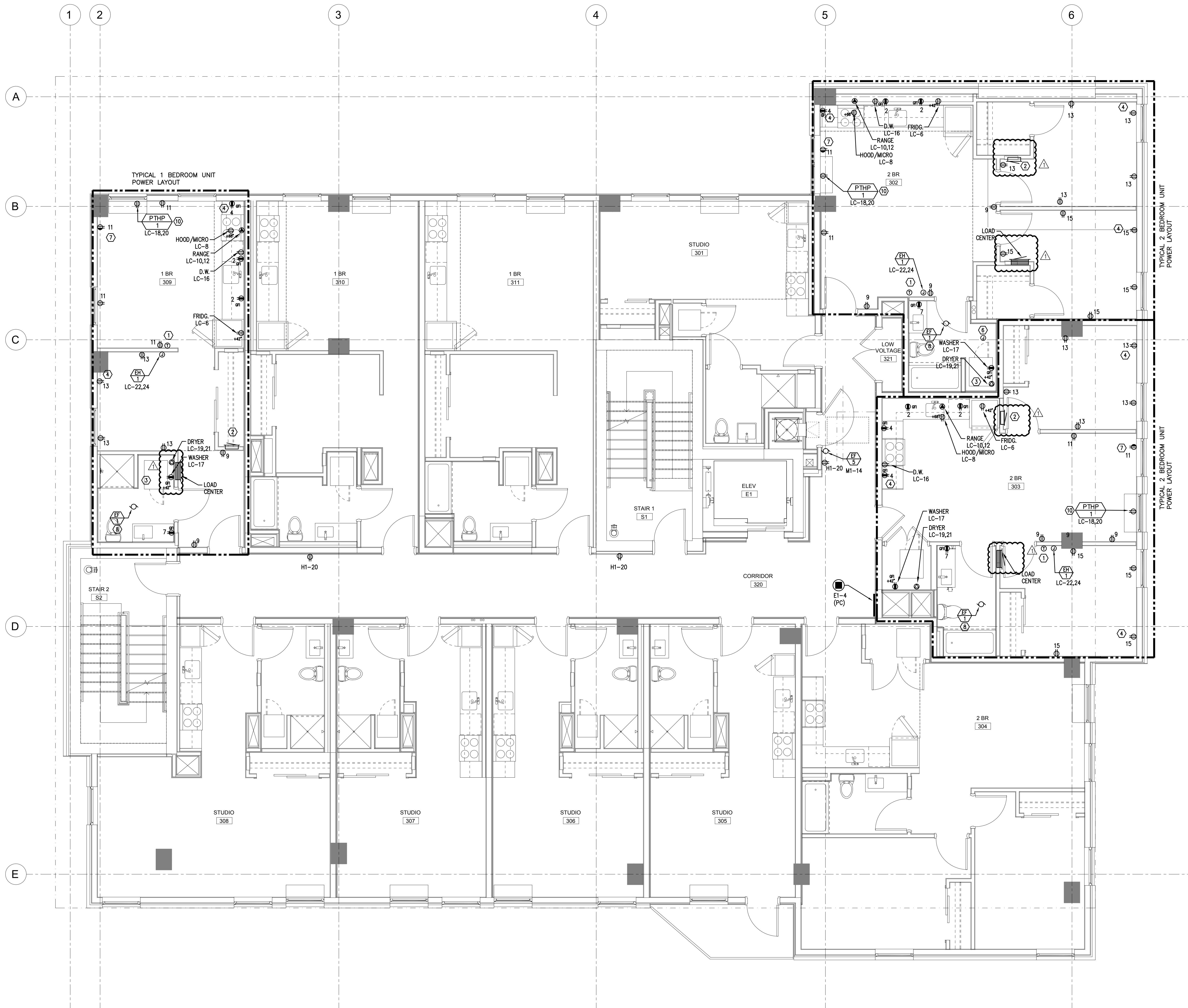
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E3.03

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.

KEYED POWER NOTES

- ① PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- ② PROVIDE ONE 20A, 120V, 1P DUPLEX RECEPTACLE ON A DEDICATED CIRCUIT FED FROM THE TENANT LOAD CENTER FOR SMART PANEL. COORDINATE EXACT LOCATION WITH LOW VOLTAGE INSTALLER PRIOR TO ROUGH IN (REFER TO 'I' SERIES SHEETS).
- ③ REFER TO DETAIL 5/E1.22 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR PRIOR TO ROUGH IN.
- ④ PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F. AT KITCHEN COUNTER & AT 18" AFF IN EACH MASTER BEDROOM.
- ⑤ PROVIDE ONE 20A, 120V, 1P GFCI DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.
- ⑥ PROVIDE ONE DEDICATED GFCI RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
- ⑦ HALF-SWITCHED DUPLEX RECEPTACLE. REFER TO TYPICAL UNIT PLANS FOR SWITCH LOCATION.
- ⑧ CONTINUOUS OPERATION BATHROOM EXHAUST FAN. TIE INTO BATHROOM LIGHT CIRCUIT.
- ⑨ PROVIDE ELECTRICAL ROUGH IN FOR LOW VOLTAGE DEVICES. REFER TO 'T' SERIES SHEETS FOR ADDITIONAL INFORMATION. COORDINATE INSTALLATION WITH LOW VOLTAGE CONTRACTOR/INSTALLER.
- ⑩ RECEPTACLE FOR PTHP UNIT SHALL BE LOCATED BELOW THE UNIT, NEAR THE BASE OF THE WALL SUCH THAT THE CORD SET IS CONCEALED AS MUCH AS POSSIBLE. COORDINATE INSTALLATION WITH THE MECHANICAL INSTALLER.



1 LEVEL 03 - POWER PLAN
E3.03 SCALE: 1/4" = 1'-0"



08/08/2019

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1	REV 01
2	REV 02

title:
LEVEL 04
POWER PLAN

sheet:
E3.04

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL CONTRACTOR FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.

KEYED POWER NOTES

- ① PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- ② PROVIDE ONE 20A, 120V, 1P DUPLEX RECEPTACLE ON A DEDICATED CIRCUIT FED FROM THE TENANT LOAD CENTER FOR SMART PANEL. COORDINATE EXACT LOCATION WITH LOW VOLTAGE INSTALLER PRIOR TO ROUGH IN (REFER TO "T" SERIES SHEETS).
- ③ REFER TO DETAIL 5/E1.22 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR PRIOR TO ROUGH IN.
- ④ PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F. AT KITCHEN COUNTER & AT 18" AFF IN EACH MASTER BEDROOM.
- ⑤ PROVIDE ONE 20A, 120V, 1P GFCI DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.
- ⑥ PROVIDE ONE DEDICATED GFCI RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
- ⑦ HALF-SWITCHED DUPLEX RECEPTACLE. REFER TO TYPICAL UNIT PLANS FOR SWITCH LOCATION.
- ⑧ CONTINUOUS OPERATION BATHROOM EXHAUST FAN. TIE INTO BATHROOM LIGHT CIRCUIT.
- ⑨ PROVIDE ELECTRICAL ROUGH IN FOR LOW VOLTAGE DEVICES. REFER TO "T" SERIES SHEETS FOR ADDITIONAL INFORMATION. COORDINATE INSTALLATION WITH LOW VOLTAGE CONTRACTOR/INSTALLER.
- ⑩ RECEPTACLE FOR PTHP UNIT SHALL BE LOCATED BELOW THE UNIT, NEAR THE BASE OF THE WALL SUCH THAT THE CORD SET IS CONCEALED AS MUCH AS POSSIBLE. COORDINATE INSTALLATION WITH THE MECHANICAL INSTALLER.



1 LEVEL 04 - POWER PLAN
SCALE: 1/4" = 1'-0"



08/08/2019

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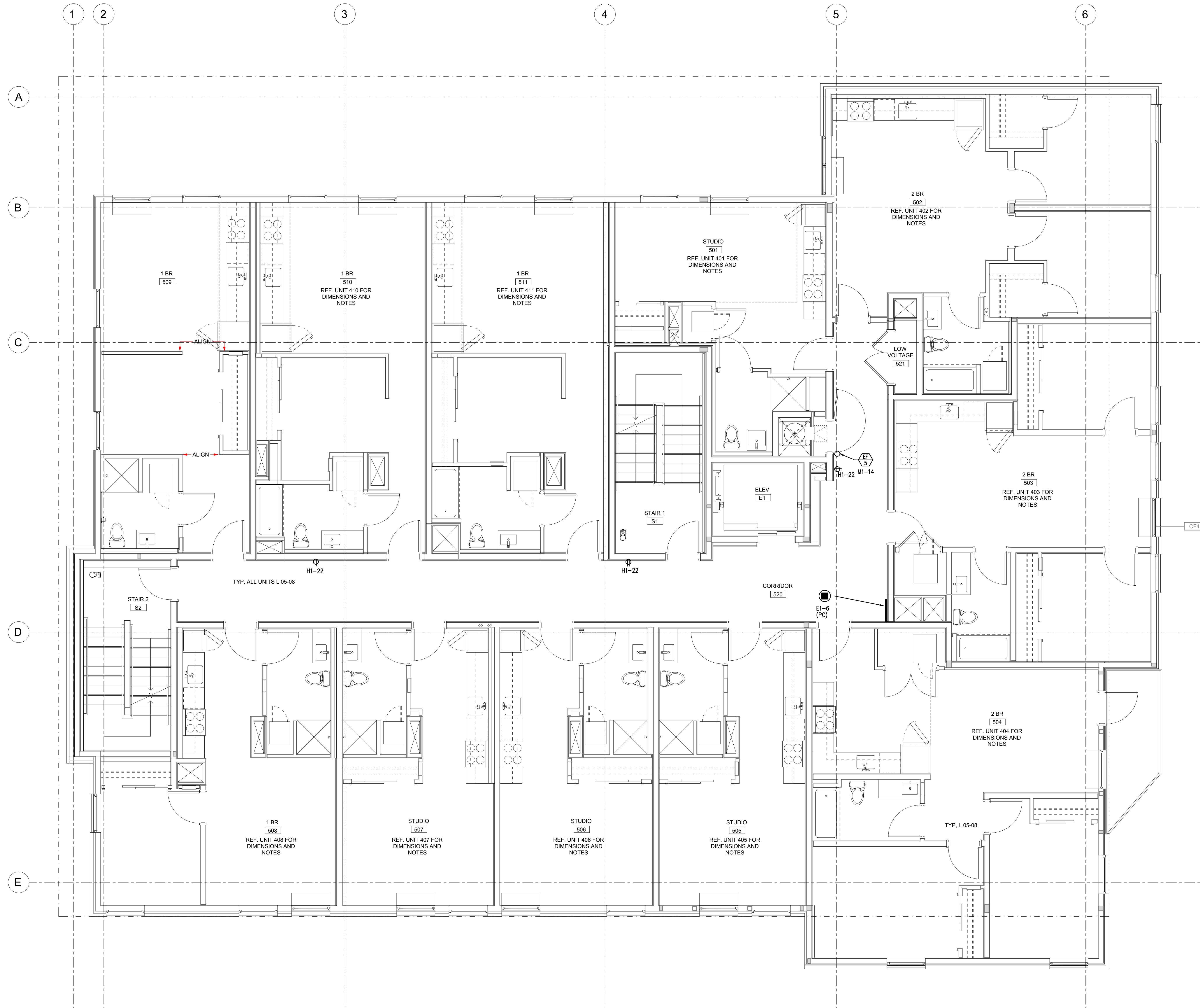
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2 REV 02	10.18.2019

title:
LEVEL 05
POWER PLAN

sheet:
E3.05

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
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- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.



1 LEVEL 05 - POWER PLAN
SCALE: 1/4" = 1'-0"

E3.05



08/08/2019

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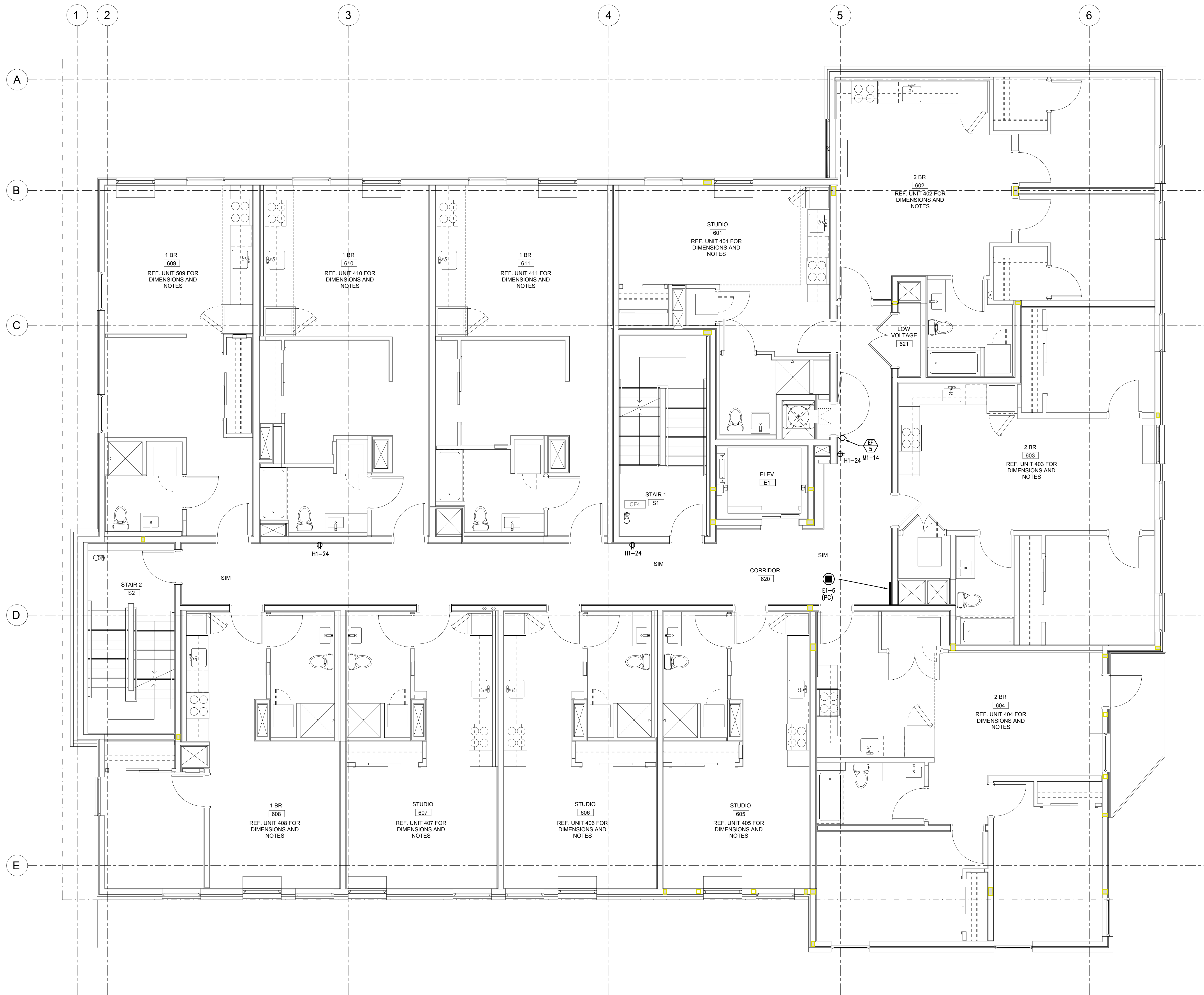
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2 REV 02	10.18.2019

title:
LEVEL 06
POWER PLAN

sheet:
E3.06

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.



1 LEVEL 06 - POWER PLAN
E3.06 SCALE: 1/4" = 1'-0"



08/08/2019

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10.18.2019

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PERMIT REV 2	10.18.2019

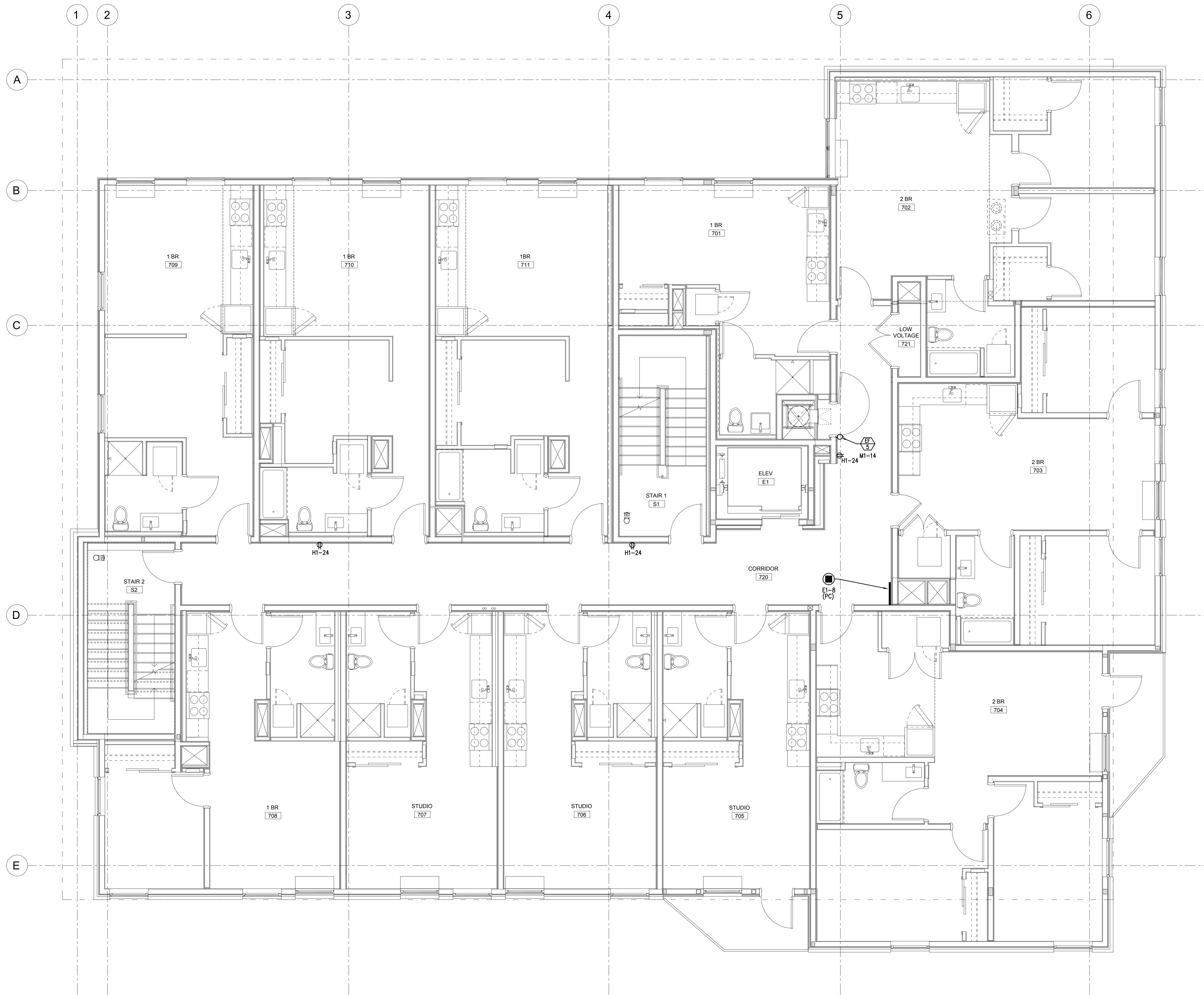
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LEVEL 07
POWER PLAN

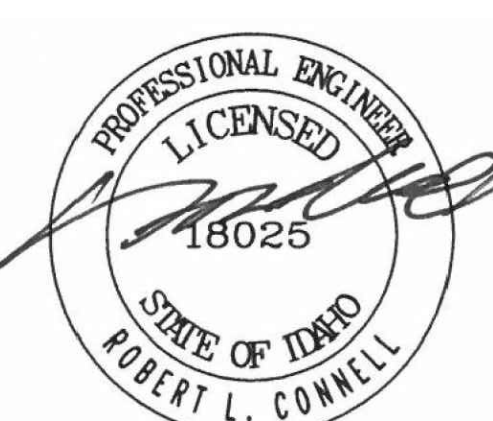
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GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.



1 LEVEL 07 - POWER PLAN
E3.07 SCALE: 1/4" = 1'-0"



08/08/2019

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1	REV 01
2	REV 02

title:
LEVEL 08
POWER PLAN

sheet:
E3.08

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- F. REFER TO ENLARGED TYPICAL UNIT PLANS (E4 SERIES SHEETS) FOR TYPICAL POWER & LIGHTING LAYOUTS FOR THE LIVE/WORK & RESIDENTIAL UNITS.

KEYED POWER NOTES

- Ⓛ BATHROOM EXHAUST FAN. TIE INTO BATHROOM LIGHT CIRCUIT.



1 LEVEL 08 - POWER PLAN
E3.08 SCALE: 1/4" = 1'-0"



08/08/2019

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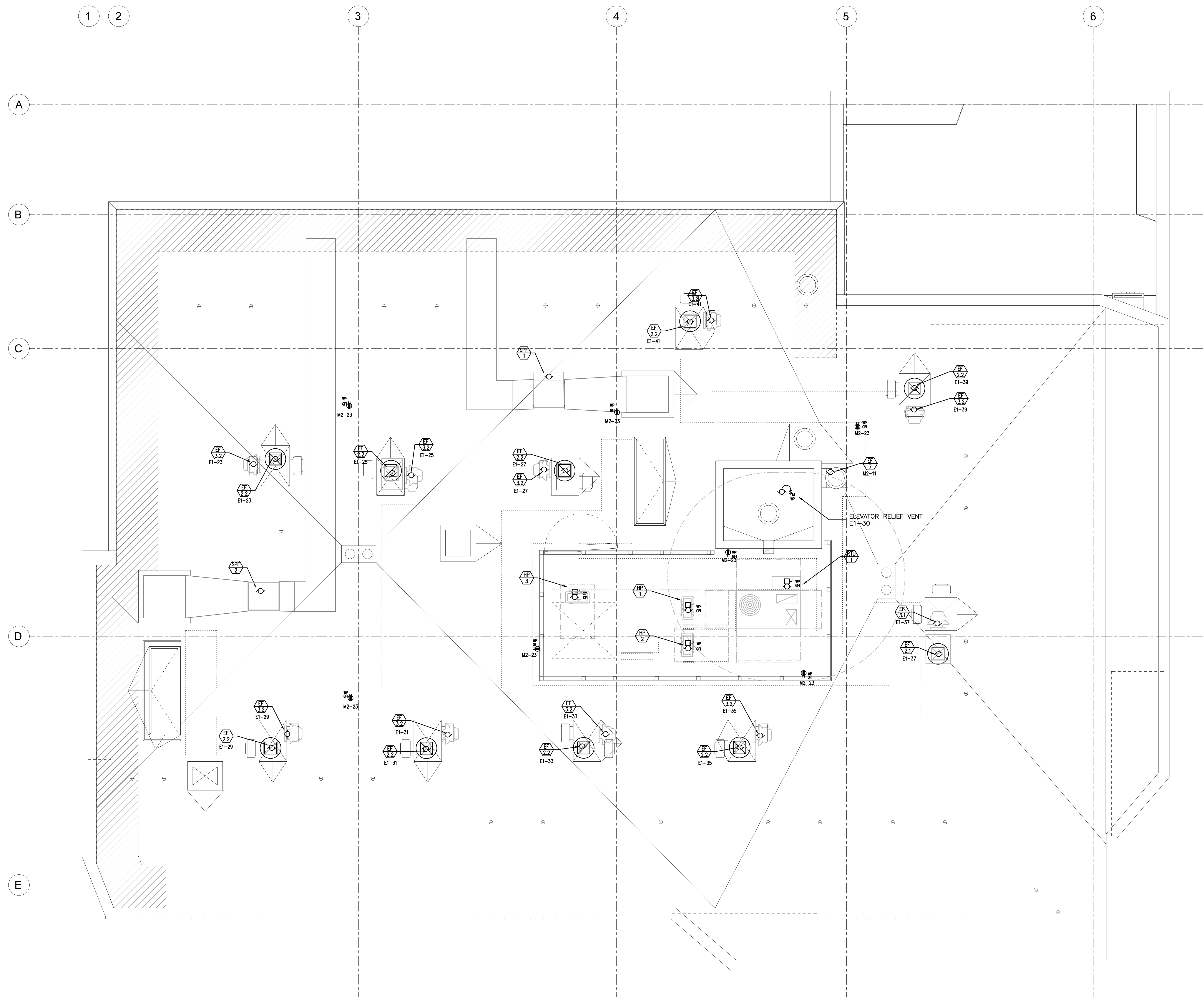
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2 REV 02	10.18.2019

title:
ROOF LEVEL
POWER PLAN

sheet:
E3.09

GENERAL POWER NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.



1 ROOF LEVEL - POWER PLAN
E3.08 SCALE: 1/4" = 1'-0"